



# INDEPENDENT DEVELOPMENT TRUST

Contract No.: DOEEC/04/2022/2023

A Tender for Category 7GB or higher CIDB Registered Contractors

## COMPLETION OF RIVERVIEW PRIMARY SCHOOL

Riverview Primary School is a public state primary school located in Kasa Location, Elliotdale,

Amathola District Municipality, Eastern Cape Province

Name of Tenderer : \_\_\_\_\_

NAME OF DULY AUTHORIZED PERSON: \_\_\_\_\_

ADDRESS : \_\_\_\_\_  
\_\_\_\_\_

TEL. NUMBER : \_\_\_\_\_

CELL NUMBER : \_\_\_\_\_

FAX NUMBER : \_\_\_\_\_

E-MAIL : \_\_\_\_\_

CRS NUMBER : \_\_\_\_\_

CSD NUMBER : \_\_\_\_\_

**ISSUED BY:**

**Independent Development Trust**  
Palm Square Business Centre  
Silverwood House  
Bonza Bay Road  
Beacon Bay  
Tel: (043) 711 6000

**PREPARED BY:**

**MMDP Quantity Surveyors**  
1<sup>st</sup> Floor Hammer Mill House  
The Quarry Office Park  
Selborne 5210  
Tel: (043) 721 0667



## **INDEPENDENT DEVELOPMENT TRUST**

The scope of works involves completing the following to facilitate a Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.

Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets).

External Works consists of the following: Demolitions and removal of existing works, Platform (partially constructed), Walkways, ramps, stairs, concrete infill areas, Gabion retainer walls, Entrance wall, Refuse room, Stormwater, Sewerage, Water supply, Sand pit and undercover play area, Parking Area, Perimeter fencing, Internal Fencing separating Grade R as well as the Elevated Water Tank, Jungle gym, Landscaping, Electrical Works

**AT**

## **COMPLETION OF RIVERVIEW PRIMARY SCHOOL**

**LOCATED IN ELLIOTDALE, EASTERN CAPE**

**TENDER NO: DOEEC/04/2022/2023**

**CLOSING DATE: 11 July 2022 @ 11:00**

### **ISSUED**

#### **Independent Development Trust**

Palm Square Business Park  
Bonza Bay Road  
Silverwood House  
Beacon Bay  
East London  
5241  
Tel: (043) 711 6000

### **PREPARED**

#### **MMDP Quantity Surveyors**

1<sup>st</sup> Floor Hammer Mill House  
The Quarry Office Park  
Selborne  
East London  
5201  
Tel: (043) 721 0667



## INDEPENDENT DEVELOPMENT TRUST

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C3	Scope of Work
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# INDEPENDENT DEVELOPMENT TRUST

**BID NOTICE No: DOEEC/04/2022/2023: 10 June 2022**

**Note: BID closes on Monday, 11 July 2022 @ 11:00**

The Independent Development Trust on behalf of the Department of Basic Education hereby invites prospective service providers to submit bids for construction works on the projects in the Eastern Cape Province as listed below.

CIDB tender value range grading as reflected in the Register of Contractors will be used as indicated below:

Name of Projects	Town	IDT Project Number	EMIS Number	Compulsory Site Briefing Meeting	CIDB Grading	Principal Agent
Completion of Riverview PS  32.053985° S; 28.612954° E	Elliotdale	DBE03ECAR 010	200400967	21 June 2022 at 11H00	7 GB or Higher	Ngonyama and Associates Architects – <b>Derek Felton</b> 043 743 3889

**Compulsory Site Briefing Meeting on the 21 June 2022 at 11H00** will take place on site at Riverview Primary School, Kasa Location, Kasa, Elliotdale, Amathola District Municipality (32.053985° S; 28.612954° E)

Bid Documents which must be completed and submitted are available for download on IDT website: [www.idt.org.za/business-opportunities/current tender bulletin](http://www.idt.org.za/business-opportunities/current-tender-bulletin), iTender, tenders or National Treasury eTender on: [www.treasury.gov.za](http://www.treasury.gov.za) from **10 June 2022**. All documents must be downloaded and printed by the bidders from the abovementioned sites.

**Bidders shall meet the following compulsory requirements before being evaluated further on functionality, price and B-BBEE:**

## **Mandatory Requirements/Documents:**

- Valid copy of a Letter of Good Standing (Workman's Compensation, COIDA) or FEM Letter of Good Standing; If a Joint Venture, then all partners must submit their own (COIDA) Registration Certificate.
- **Fully Completed and Signed Standard Bidding Documents:**
  - ✓ Invitation to Bid (SBD 1)
  - ✓ Bidders Disclosure (SBD 4)
  - ✓ Preference Points Claim Forms (SBD 6.1)
  - ✓ Local Production and Content (SBD 6.2) (including all the annexures C. Bidders must return Annexure C. All blank spaces must be completed. Bidders to indicate items that are not applicable.)
- Signed and fully completed Original Certificate/Affidavit of Authority for Signatory
- Signed Joint Venture or consortium Agreement Between Parties showing project sharing percentage (where applicable) signed by all parties.
- Proof of valid and active CIDB grading designation certificate (Joint Ventures Must submit valid and active consolidated CIDB grading registration certificate)
- Fully completed Signed Form of Offer and Acceptance.
- Fully priced and completed Bills of Quantities, Electrical and Mechanical Installations.
- Attendance of compulsory tender briefing meeting and signing of the attendance register.
- Completion of form of offer in the tender document **in full & signed.**
- No Copies, no correctional fluids, erasable pen or a lead pencil will be used on any of the submitted forms. Only black ink must be used to complete documents. Any mistakes must be neatly crossed out and countersigned by all relevant parties
- Proof of Central Supplier Database (CSD) registration – CSD Number (Joint Ventures must submit CSD for both JV Partners) (MAAA number must be submitted for verification)
- Acknowledgment of Addenda to the tender document.

**NB: Failure to comply with any of the above-mentioned requirements will result in automatic disqualification of the bid response.**

**Non-Mandatory Returnable Documents:**

1. B-BBEE Certificate (Original/Original Certified Copy)
2. Tax Compliance Letter with a unique pin
3. A detailed CIPC document with all the original certified (not older than 3 months) ID's of all directors listed in CIPC.
4. For JV/Consortium partnership; must submit consolidated B-BBEE SANAS certificate. Failure to submit will result in no points awarded for B-BBEE.

**Local Production and Content (SBD 6.2)**

Bidders are hereby notified that the minimum threshold for local production and content for steel construction materials is tabulated below. Bidders are to identify components relevant for the scope of work bidding for.

<b>Steel Construction Materials</b>	<b>Components</b>	<b>Local Content Threshold</b>
Fabricated Structural Steel	Latticed steelwork, reinforcement steel, columns beams, plate girders, rafters, bracing, cladding supports, stair stringers & treads, ladders, steel flooring, floor grating, handrailing & balustrading, scaffolding, ducting, gutters, launders, downpipes and trusses	100%
Joining / Connecting Components	Gussets, cleats, stiffeners, splices, cranks, kinks, doglegs, spacers, tabs and brackets	100%
Frames	Doors and Windows	100%
Roof and Cladding	Bare steel cladding, galvanised steel cladding, colour coated cladding	100%
Fastners	Bolts, nuts, rivets and nails	100%
Wire Products	All fencing products: all barbed wire and mesh fencing, fabric/mesh reinforcing, gabions, wire rope/strand and chains, welding electrodes, nails/tacks, spring and screws	100%
Ducting & Structural Pipework	Non-conveyance tubing fabricated from steel sheeting and plate with structural supports	100%
Gutters, downpipes & launders	Fabricated materials made from sheeting associated with roof drainage systems	100%

- Bidders are further notified that bids in respect of steel and components for construction must contain a specific bidding condition which states that:
- Only locally produced or locally manufactured steel products and components for construction with a stipulated minimum threshold for local production and content will be considered.
- If the quantity of steel products and components for construction required cannot be wholly sourced from South African (SA) based manufacturers and/or at the designated local content threshold stipulated in the above table at any time, bidders and the procuring entities should obtain a written exemption from the DTI. The DTI, in consultation with the procuring organ of state and the local industry, will consider the exemption applications on a case-by-case basis.
- Bidders must clearly indicate in their bids the quantities to be supplied and the level of local content for each product.
- The exchange rate to be used for the calculation of local production and content must be the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on the date of advertisement of bid; and only the South African Bureau of Standards (SABS)

approved technical specification number SATS 1286:2011 must be used to calculate local content.

- The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the formula disclosed in SBD 6.2 inserted in the bid document.
  - A commercial risk assessment will be done on bids received. As such the IDT reserves the right to not appoint the lowest tendered price.
  - A risk assessment will be done on bids received as a tender condition.
  - Preferences are offered to Tenderers who have a proven track record in the building industry with special emphasis on similar facilities. Only Tenderers who are competent in the advertised work, will be evaluated on an 80/20 criteria based on the Treasury Regulations of 2017, where functionality will be evaluated as follows:
- Criteria Points Allocation

## Evaluation Criteria

### **STAGE 2– Functionality**

Bidders are to obtain a minimum of **70** points of the total functionality points to be considered for the next stage

#### **FUNCTIONALITY**

<b>Functionality area</b>	<b>Points</b>
Experience on similar scale projects	35points
Qualifications & competencies of key staff	20 points
Project Specific Programme schedule and cash flow	20 points
Client References	25 points
<b>Total</b>	<b>100 Points</b>

NB: Minimum qualifying functionality threshold is **70 points out 100**

#### **DESCRIPTION OF FUNCTIONALITY FOR ALLOCATION OF POINTS:**

**1. Relevant Experience on Similar Construction Projects (35 points):**

Points are allocated for relevant experience on similar construction projects completed in the past 5 years. The similarity references to project of similar kind, complexity and value in terms of the CIDB categorization. In support tenderers are to complete the "Project Experience" returnable schedule.

## **2. Qualifications and Key Personnel (20 points)**

Points are allocated for educational qualifications and professional registration of allocated key personnel for the project under consideration. For each key personnel allocated to the project, the bidders shall submit for following: Curriculum Vitae together with certified proof of qualifications and professional registration (as per returnable schedule B 3.1 and B 3.2)

- A. Highest qualifications and Professional Registration (8 points)
- B. Competence of Key Personnel (Subtotal 12 Points)

## **3. Project Schedule (20 points):**

Points are awarded for project duration undertaking as per returnable activity schedule B1.2. This represents only key project deliverables and runs from the assumed start date indicated, for purposes of uniformity and ease of comparison. Failure to populate returnable schedule B1.2 in full will result in zero points awarded (NB: Bidders reminded that penalty clause is applicable in the event that bidders offer unrealistically short duration just to score higher points) The shortest realistic project duration will receive 20 points, with comparative duration awarded points in line with the formula below:

$$\text{PrSc} = 20 \times (\text{Dm}/\text{D})$$

**Where:**

**PrSC = No. of points scored for project schedule**

**Dm = lowest acceptable comparative project duration in Days**

**D = Comparative project duration in Days of tender under consideration**

B1.2 Project Shedule				
Project Start Date		A		
		02-May-22		
B1.2 (a) Site preparation				
Item No.	Description of activity	Start Date	Finish Date	No. of Calendar days
		B	C	D
1	Site clearance, leveling and preparation complete			
2				
3				
B1.2 (b) Construction of new school facility				
Item No.	Description	Start Date	Finish Date	No. of Calendar days
		E	F	G
	Bulk Earthworks			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
B1.2 (c) Finishing				
Item No.	Description of activity	Start Date	Finish Date	No. of Calendar days
		H	I	J
22	Commissioning of Services; water, sewer, electricity and HAND OVER			
B1.2 (d) Summary: Project Duration				
Project Start Date		Project Finish / Hand Over Date (P)	Total Number of Calendar Days (I - A)	
A		I	K	
02-May-22				

#### 4. Client References (25 points)

Points are allocated for performance on previous projects executed in terms of the respective completed "Client Reference Scorecards" (see returnable schedules) for the projects listed on the abovementioned "Relevant Project Experience" returnable schedule and attach thereto copies of relevant completion certificates (appointment letter, practical completion or works completion or final completion or an original certified letter from the client confirming completion of such a project).

Evaluation points will be awarded in terms of the following table:

Description/performance	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
Quality of Office administration					
Quality of site management					
Competence of foreman					
Co-operation during contract					

Quality of workmanship					
Quality of materials					
Project management					
Rectification of condemned work					
Tidiness of site					

## **STAGE 2 – Price and B-BBEE**

In order to claim and be awarded B-BBEE points, Bidders must submit fully completed Preference Points Claim Forms (SBD 6.1) with an original or an original certified copy of B- BBEE certificate (not older than 3 months), issued by SANAS or Accredited Verification Agency or an original Sworn Affidavit signed by a Commissioner of Oaths and Joint Ventures (JV) must submit an original certified copy of a consolidated B-BBEE Status Level Contributor Certificate obtained from SANAS Accredited Verification Agency, no consolidated Sworn Affidavit will be considered. (Note - An incomplete affidavit will not be acceptable, Sworn Affidavits for EME's and QSE's must be originals. No copies of affidavits will be accepted for claiming B-BBEE points)

**(Failure to submit will render Bidder scoring Nil points in this regard)**

B-B BEE points are allocated as follows:

Price	80 points
B-BBEE Status Level Contributor	20 points
<b>TOTAL</b>	<b>100 points</b>

### **Allocation of points for B-BBEE Status Level Contributor:**

Bidders that do not get a positive response from the IDT within a period of **90** days from the closing date, should understand that their Bids have not been successful.

**For enquiries, please contact:**

PROVINCE		CONTACT PERSON FOR ENQUIRIES	CONTACT NUMBERS	EMAIL ADDRESSES
Eastern Cape	Technical Queries	Derek Felton	043 743 3889	derek@noael.co.za
	SCM Queries	Nomnikelo Dyasi.	043 711 6000 IDT	nomnikelon@idt.org.za

**DEPOSIT/RETURN OF BID DOCUMENTS:**

- Telegraphic, telephonic, telex, facsimile, electronic and/or late bids will not be accepted
- Requirements for sealing, addressing, delivery, opening and assessment of bids are stated in the Bid Data document
- All bids must be submitted on the official forms – (not to be re-typed)
- Bids will not be opened in public

<b>BID DOCUMENTS MAY BE POSTED TO:</b>  N/A	<b>OR</b>	<b>DEPOSITED IN THE BID BOX AT:</b>  INDEPENDENT DEVELOPMENT TRUST, PALM SQUARE BUSINESS PARK, SILVERWOOD HOUSE, BONZA BAY ROAD, BEACON BAY, EAST LONDON
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## INDEPENDENT DEVELOPMENT TRUST

### T1.1 Tender Notice and Invitation to Tender

The scope of works involves completing the following to facilitate a Primary School which will accommodate Grades R to Grade 6, with the following facilities:

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It is estimated that tenderers should have a CIDB contractor grading of **7GB or higher**

The physical address for **collection** of tender documents is:

#### INDEPENDENT DEVELOPMENT TRUST OFFICES

Independent Development Trust  
Palm Square Business Centre  
Silverwood House  
Bonza Bay Road  
Beacon Bay  
East London

Documents will be available from the **10 June 2022**.

**The tender documents must be downloaded from IDT Website [www.idt.org.za/](http://www.idt.org.za/) business opportunities/current bulletin, iTender, eTender, Tender Bulletin, or National Treasury as per tender Advert**

Queries relating to the issues of these documents may be addressed to:

Nomnikelo Dyasi / Derek Felton

Tel No 043 711 6000 / 043 743 3889

E- mail [nomnikelon@idt.org.za](mailto:nomnikelon@idt.org.za) or [derek@noael.co.za](mailto:derek@noael.co.za)

Or

Frikkie Bezuidenhout

Tel No 043 721 0667

E- mail [Frikkie@mmdp.co.za](mailto:Frikkie@mmdp.co.za)

**Tender  
Part T1: Tendering procedures**

**T1.1**

**BID No: DOEEC/04/2022/2023**

**Tender Notice and Invitation to Tender**

Tender documents to be submitted at the tender box of the IDT office:

#### INDEPENDENT DEVELOPMENT TRUST OFFICES

Palm Square Business Centre  
Silverwood House  
Bonza Bay Road, Beacon Bay  
East London

#### COMPULSORY BRIEFING SESSION

**21 June 2022 at 11H00, Riverview Primary School, Kasa Location, Kasa, Elliotdale, Amathola District Municipality (32.053985° S; 28.612954° E)**

#### TENDER CLOSE

The closing date and time for receipt of tenders is **11 July 2022 @ 11:00**.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

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#### PLEASE NOTE THE FOLLOWING IMPORTANT DATES

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- **Compulsory Briefing Session: 21 June 2022 at 11H00, Riverview Primary School, Kasa Location, Kasa, Elliotdale, Amathola District Municipality (32.053985° S; 28.612954° E)**
- **Tender Closing Date: 11 July 2022 @ 11:00**

## INDEPENDENT DEVELOPMENT TRUST

Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities:

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### T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement. (See [www.cidb.org.za](http://www.cidb.org.za)) which are reproduced without amendment or alteration for the convenience of tenderers as an Annex to this Tender Data.

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

**The additional conditions of tender are:**

<b>Clause number</b>	<b>Tender Data for BID NO: DOEEC/04/2022/2023</b>
F.1.1	The employer is the <b>Independent Development Trust, Eastern Cape</b>
F.1.2	The tender documents issued by the employer comprises: T1.1 Tender notice and invitation to tender T1.2 Tender data T2.1 List of returnable documents T2.2 Returnable schedules <b>Part 1: Agreements and contract data</b> C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Form of Guarantee C1.4 Adjudicator's appointment <b>Part 2: Pricing data</b> C2.1 Pricing instructions C2.2 Activity schedules / Bills of Quantities <b>Part 3: Scope of work</b> C3 Scope of work <b>Part 4 : Site information</b> C4.1 Site information C4.2 Project Health and Safety Specification

F.1.4 The employer's agent is:

Name: **Ngonyama and Associates Architects**  
Address: 13 LUKIN RD, SELBORNE, EAST LONDON, 5247  
Tel: 043 743 3889  
E-mail: derek@noael.co.za

F.2.1 Only those tenderers who are registered with the CIDB or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **Grade 7GB or higher class** of construction work, are eligible to submit tenders.

Joint ventures are eligible to submit tenders provided that:

1. every member of the joint venture is registered with the CIDB;
2. the lead partner has a contractor grading designation in the Grade 7GB or higher class of construction work; and
3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **(7GB or higher ) General Building** class of construction work.

F.2.12 No alternative tender offers will be considered

F.2.13.3 Parts of each tender offer communicated on paper shall be submitted as one original (i.e., no copies should be submitted).

F.2.13.5 The employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:

F2.15.1

**Location of tender box: Physical address: -**

INDEPENDENT DEVELOPMENT TRUST OFFICES  
Palm Square Business Park  
Silverwood House  
Bonza Bay Road  
Beacon Bay

**Identification details:**

**Project no: BID No: DOEEC/04/2022/2023**  
**Title: Completion of Riverview Primary School**

- F.2.15 The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
- Closing date: 11 July 2022**  
**Closing time: 11h00**
- F.2.15 Telephonic, Telegraphic, Telex, Facsimile or E-mailed tender offers will not be accepted.
- F.2.16 The tender offer validity period is **90 (Ninety) days**.
- F.2.17 The contract duration is **8 Calendar Months excluding annual builders break** from date of Site Handover.
- F.2.23 The tenderer is required to submit with his tender a Certificate of Contractor Registration issued by the Construction Industry Development Board; Compensation of Injury Diseases Act certificate (COIDA) and a valid Tax Clearance Certificate issued by the South African Revenue Services.  
Where a tenderer tenders through joint venture formation, such tenderers should include a joint venture agreement duly signed by each partner and stamped by commissioner of oath.
- F.3.4 Tenders will not be opened immediately after the closing time; they will be posted on the IDT Website within 7 days of closure.

**F.3.11 Tender offers will only be accepted if the following are submitted**

No	Gate Keeper (Compulsory) Criteria	Gate Keeper Criteria Description
1	Proof of authority to sign the document must be submitted e.g., company resolution.	Proof of authority to sign the document must be submitted on Company Letterhead e.g., company resolution.
2	Letter of good standing/Copy of registration (COIDA/FEM) from the Department of Labour	Valid Letter of Good Standing (Workman's Compensation, COIDA) or FEM Letter of Good Standing. If JV all partners must submit
3	CIDB Grading Certificate.	Required valid and active CIDB Grading equivalent for the works. JV's to submit consolidated CIDB Grading.
4	Fully & Duly Completed Detailed Bill of Quantities (BOQ), Written in Black Ink	All items in the original Bill of Quantities must be priced (rates and amounts and totals) with the exception of preliminaries (contractor can select options in line with the PBA JBCC March 2005 Edition 4.1), written in Ink. No Copies, no correctional fluids, erasable pen or a lead pencil must be used in the BOQ. Only black ink must be used to complete documents. Any mistakes must be neatly crossed out and countersigned by all relevant parties. All blanks' spaces to be completed.
5	Consortium / Joint Venture Agreement	<b>If Applicable</b> , JV Agreement signed by all parties of the JV and signed & stamped by the commissioner of oaths.
6	Duly Completed Form of Offer	Fully & Duly Completed and Signed form of offer and witnessed. All blanks' spaces must be completed.
7	Duly completed and signed Invitation to BID, Part A and B (SBD 1)	Fully & Duly Completed and signed Invitation to BID, Part A and B (SBD 1). All blank spaces must be completed. Bidder to indicate items that are not applicable.
8	Duly completed Bidders Declaration (SBD 4)	Fully & Duly Completed and Signed Bidders Declaration (SBD 4). All blank spaces must be completed. Bidders to indicate items that are not applicable.
9	Duly Completed and Signed Preference points claim form in terms of PPPFA, Procurement Regulations 2017 (SBD 6.1)	Fully & Duly Completed and Signed Preference points claim form in terms of PPPFA, Procurement Regulations 2017 (SBD 6.1). All blanks' spaces must be completed. Bidders to indicate items that are not applicable.
10	Duly Completed and Signed Local content form (SBD 6.2)	<p>Fully &amp; Duly Completed and Signed Local content form (SBD 6.2) including all the annexures C, D &amp; E. Bidders must return Annexure C. Annexure D &amp; E to be kept by the bidder for verification/audit upon appointment. All blanks' spaces must be completed. Bidders to indicate items that are not applicable.</p> <p>Only locally (South Africa) manufactured product that meet the stipulated minimum threshold for local content will be considered (Preferential Procurement Regulations 2017).</p> <p>A Bid that fails to meet the stipulated threshold for local production and content is unacceptable and will be disqualified</p>
11	No Copies, no correctional fluids, erasable pen or a lead pencil will be	No Copies, no correctional fluids, erasable pen or a lead pencil will be used on any of the submitted forms. Only black ink must

used on any of the submitted forms. Only black ink must be used to complete documents. Any mistakes must be neatly crossed out and countersigned by all relevant parties.	be used to complete documents. Any mistakes must be neatly crossed out and countersigned by all relevant parties.

**Instruction notes:**

- **All blanks' spaces must be completed on all the SBD forms.**
- **Bidders to indicate items that are not applicable to them on all the forms.**
- **Bidders are advised to fill in the correct information on all the SBD forms.**
- **Bidders are encouraged to familiarize themselves with the project site in order to assist them in planning, pricing and executing the project.**
- **All Bidders are required to be registered on CSD (Central Supplier Database) with National Treasury.**
- **Please Provide CSD Registration report with supplier number with your Bid.**

### 4.3.3 Functionality Criteria

The quality criteria and maximum score in respect of each of the criteria are as follows:

#### Scoring Quality (Functionality)

A maximum equal to **100 tender evaluation points** will be awarded for quality. Only bidders who score 70% and above (i.e. 70 points and above out of a total of 100 points) will be further evaluated in terms of the 80/20 price/preference points system in line with Preferential Procurement Policy Framework Act (Act No.5 of 2000).

The functionality will be scored using the following values:

- 100 points – Quality
  - 35 points – Experience on similar scale projects
  - 20 points – Qualifications & competencies of key staff
  - 20 points – Project Specific Programme schedule and cash flow
  - 25 points – Client References

#### Notes:

1. **Bidders are required to score minimum points of 70 (70%) for Functionality stated in tender data.**
2. **Bidders who fail to meet the required minimum number of points for functionality stated in the tender data will not be evaluated further.**
3. **Bidders who fail to submit information as per the returnable schedules will not be allocated points.**

### ALLOCATION OF FUNCTIONALITY POINTS

#### Relevant Experience on Similar Construction Projects (35 points):

Points are allocated for relevant experience on similar construction projects completed in the past 5 years (projects to have minimum value of R10 million). The similarity references to project of similar kind, complexity and value in terms of the CIDB categorization. In support tenderers are to complete the "Project Experience" returnable schedule.

Evaluation points will be awarded in terms of the following table:

<b>Number of Similar Construction Projects completed in the last 5 years</b>	<b>Number of points</b>
5	35
4	28
3	21
2	14
1	7
0	0



**Qualifications and Key Personnel (20 points):**

Points are allocated for educational qualifications and professional registration of allocated key personnel for the project under consideration. For each key personnel allocated to the project, the bidders shall submit for following: Curriculum Vitae together with certified proof of qualifications and professional registration (as per returnable schedule B 3.1 and B 3.2)

Evaluation points will be awarded in terms of the following table:

**Highest qualifications and Professional Registration (8 points)**

Category	Qualification		Professional Registration		Total Points
	Degree	Diploma	Yes	No	
Contract Director	3	2	1	0	
Site Agent/Manager	3	2	1	0	
<b>Subtotal number of points</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>0</b>	

**Competence of Key Personnel (Subtotal 12 Points)**

Category	Experience			
	Between 1-4 years	Between 4-8 years	Between 8-12 years	Over 12 years
Contract Director	2	4	5	6
Site Agent/Manager	2	4	5	6
<b>Subtotal number of points</b>	<b>4</b>	<b>8</b>	<b>10</b>	<b>12</b>

**Project Schedule (20 points):**

Points are awarded for project duration undertaking as per returnable activity schedule B1.2. This represents only key project deliverables and runs from the assumed start date indicated, for purposes of uniformity and ease of comparison. Failure to populate returnable schedule B1.2 in full will result in zero points awarded (NB: Bidders reminded that penalty clause is applicable in the event that bidders offer unrealistically short duration just to score higher points) The shortest realistic project duration will receive 20 points, with comparative duration awarded points in line with the formula below:

$$\text{PrSc} = 20 \times (\text{Dm}/\text{D})$$

Where:

PrSC = No. of points scored for project schedule

Dm = lowest acceptable comparative project duration in Days

D = Comparative project duration in Days of tender under consideration

**Client References (25 points):**

Points are allocated for performance on previous projects executed in terms of the respective completed “Client Reference Scorecards” (see returnable schedules) for the projects listed on the abovementioned “Relevant Project Experience” returnable schedule and attach thereto copies of relevant completion certificates (appointment letter, practical completion or works completion or final completion or an original certified letter from the client confirming completion of such a project).

Evaluation points will be awarded in terms of the following table:

Description/performance	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
Quality of Office administration					
Quality of site management					
Competence of foreman					
Co-operation during contract					
Quality of workmanship					
Quality of materials					
Project management					
Rectification of condemned work					
Tidiness of site					

**4.3.4. Preferential procurement system**

80/20 preferential procurement system to be utilized as per PPPFA 2017. The project is estimated to be below R50m.

Variables	Total Points	Criteria	Description Of Criteria	Points
<u>B-BBEE</u>	<u>20</u>	B-BBEE Contributor level 1	Points allocated to entities who are contributing towards the empowerment of black people (a SANAS accredited B-BBEE Certificate MUST be submitted with the bid documents before any points can be allocated)	20
		B-BBEE Contributor level 2		18
		B-BBEE Contributor level 3		16
		B-BBEE Contributor level 4		12
		B-BBEE Contributor level 5		8
		B-BBEE Contributor level 6		6
		B-BBEE Contributor level 7		4
		B-BBEE Contributor level 8	Bidders to submit Original	2

		Non-compliant contributor	Sworn Affidavit B-BBEE or SANAS certified copies not older than 6 months).  Joint Ventures / Consortia entities must submit a consolidated B-BBEE certificate from SANAS-Accredited verification agency in order to qualify for points for their B-BBEE status level as an incorporated entity. Sworn affidavits for joint ventures will not be considered.	0
Financial Offer / Price:				
Financial Offer/Price	80	Formula=2 Option 1, $A=(1-\{p-pm/pm\})$	Formula used to calculate financial offer/price points	
		Pm=The comparative Price offer of the mean/average quantifying tenderer		
		P=The comparative offer of the tender under consideration		
	100			

### BBEE

A bidder must submit proof of B-BBEE status level of contributor. A tenderer failing to submit proof of B-BBEE status level of contribution or is a non-compliant contributor to B-BBEE may not be disqualified, but may only score points out of 80 for price; and scores 0 points out of 20 for B-BBEE.

Bidders who qualify as EMEs should submit Original Sworn affidavit signed by the EME representative and attested by a Commissioner of oaths.

Joint Ventures / Consortia entities must submit a consolidated B-BBEE certificate from SANAS-Accredited verification agency in order to qualify for points for their B-BBEE status level as an unincorporated entity. Including EMEs and QSE, sworn affidavit Joint Venture will not be considered as is not valid

## **PART T2: RETURNABLE DOCUMENTS**

## **T2.1 List of Returnable Schedules**

## 1. LIST OF RETURNABLE SCHEDULES

Returnable Schedules required only for tender evaluation purposes (certified copies not older than six months or originals of the following documents):

No	Non Statutory (Non Compulsory) Requirements	Non Statutory (Non Compulsory) Requirements Description	Notes:
1	Checklist for Tender Submission	Checklist for Tender Submission	
2	Details of Tender	Details of Tender	
3	Certificate of Compliance with Tender Documentation	Certificate of Compliance with Tender Documentation	
4	Letter of Intent to Provide Security / Guarantee	Letter of Intent to Provide Security/ Guarantee from accredited financial institution	
5	Litigation History	Litigation History – bidder to disclose all the pending litigations against their company	
6	<b>Past Projects undertaken by the Tenderer in the last 10 years</b>	Past Completed Projects undertaken by the Tenderer in the last 5 years	
7	B-BBEE certificate	Points allocated to entities who are contributing towards the empowerment of black people (an Original Sworn Affidavit B-BBEE or SANAS accredited B-BBEE Certificate MUST be submitted with the bid documents before any points can be allocated) Bidders to submit Original Sworn Affidavit B-BBEE or SANAS certified copies not older than 6 months). Joint Ventures / Consortia entities must submit a consolidated B-BBEE certificate from SANAS-Accredited verification agency in order to qualify for points for their B-BBEE status level as an incorporated entity. Sworn affidavits for joint ventures will not be considered.	
8	<b>Tenderer's Competence &amp; Performance on Similar Projects</b>	Tenderer's Competence & Performance on Similar Projects	
9	Record of Addenda to Tender Documents	Record of Addenda to Tender Documents	
10	Proposed amendments and Qualifications	Proposed amendments and Qualifications	
11	Detailed Cash-Flow	Detailed Cash-Flow	
12	<b>Key Personnel</b>	Curriculum Vitae of Key Personnel and Certified Qualifications that are not older than 6 months	
13	Proposed Project Organogram	Proposed Project Organogram	
14	Detailed Resourcing schedule	Detailed Resourcing schedule	
15	<b>Schedule of Plant and Equipment</b>	Schedule of Plant and Equipment	
16	Tax Clearance certificate	Submission of valid Tax compliance status form (PIN)	

- 1. Tenderers are required to score minimum points of 70 for Functionality stated in tender data.**
- 2. Tenderers who fail to meet the required minimum number of points for functionality stated in the tender data will not be evaluated further.**
- 3. Tenderers who fail to submit information as per the returnable schedules will not be allocated points.**

## T2.2 Returnable Schedules



**T2.1.20 EVALUATION SCHEDULE: CLIENT REFERENCES**

The Tenderer shall provide details of his performance on each of the previous projects listed in the “Relevant Experience” returnable schedule. “Client Reference Scorecards” will be completed by each of the respective Clients for the projects listed in the “Relevant Experience” returnable schedule.

The following are to be completed by the Client or Principal Agent and is to be supported in each case by a letter of award and the works completion certificate. Client or Principal Agent must sign and stamp the documents, failure to obtain both signatures and stamps will result in no allocation of points

<b>1. PROJECT NAME AND SCOPE:</b>
-----------------------------------

**Principal agent:** .....

**Client:** .....

**Contract Amount:** .....

**Contract Duration:**.....

**Actual Contract Duration:**.....

Description/performance	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
Quality of Office administration					
Quality of site management					
Competence of foreman					
Co-operation during contract					
Quality of workmanship					
Quality of materials					
Project management					
Rectification of condemned work					
Tidiness of site					

Any other remarks considered necessary to assist in evaluation of the contractor?  
 .....  
 .....

**Name of Client Representative:** .....

**Designation:** .....

**Telephone:** .....

**Client Signature:** ..... **Date:** .....

Stamp
-------

**T2.1.20 EVALUATION SCHEDULE: CLIENT REFERENCES**

The Tenderer shall provide details of his performance on each of the previous projects listed in the “Relevant Experience” returnable schedule. “Client Reference Scorecards” will be completed by each of the respective Clients for the projects listed in the “Relevant Experience” returnable schedule.

The following are to be completed by the Client or Principal Agent and is to be supported in each case by a letter of award and the works completion certificate. Client or Principal Agent must sign and stamp the documents, failure to obtain both signatures and stamps will result in no allocation of points

<b>1. PROJECT NAME AND SCOPE:</b>
-----------------------------------

**Principal agent:** .....

**Client:** .....

**Contract Amount:** .....

**Contract Duration:**.....

**Actual Contract Duration:**.....

Description/performance	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
Quality of Office administration					
Quality of site management					
Competence of foreman					
Co-operation during contract					
Quality of workmanship					
Quality of materials					
Project management					
Rectification of condemned work					
Tidiness of site					

Any other remarks considered necessary to assist in evaluation of the contractor?  
 .....  
 .....

**Name of Client Representative:** .....

**Designation:** .....

**Telephone:** .....

**Client Signature:** ..... **Date:** .....

Stamp
-------

**T2.1.20 EVALUATION SCHEDULE: CLIENT REFERENCES**

The Tenderer shall provide details of his performance on each of the previous projects listed in the “Relevant Experience” returnable schedule. “Client Reference Scorecards” will be completed by each of the respective Clients for the projects listed in the “Relevant Experience” returnable schedule.

The following are to be completed by the Client or Principal Agent and is to be supported in each case by a letter of award and the works completion certificate. Client or Principal Agent must sign and stamp the documents, failure to obtain both signatures and stamps will result in no allocation of points

<b>1. PROJECT NAME AND SCOPE:</b>
-----------------------------------

**Principal agent:** .....

**Client:** .....

**Contract Amount:** .....

**Contract Duration:**.....

**Actual Contract Duration:**.....

Description/performance	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
Quality of Office administration					
Quality of site management					
Competence of foreman					
Co-operation during contract					
Quality of workmanship					
Quality of materials					
Project management					
Rectification of condemned work					
Tidiness of site					

Any other remarks considered necessary to assist in evaluation of the contractor?  
 .....  
 .....

**Name of Client Representative:** .....

**Designation:** .....

**Telephone:** .....

**Client Signature:** ..... **Date:** .....

Stamp
-------

**T2.1.20 EVALUATION SCHEDULE: CLIENT REFERENCES**

The Tenderer shall provide details of his performance on each of the previous projects listed in the “Relevant Experience” returnable schedule. “Client Reference Scorecards” will be completed by each of the respective Clients for the projects listed in the “Relevant Experience” returnable schedule.

The following are to be completed by the Client or Principal Agent and is to be supported in each case by a letter of award and the works completion certificate. Client or Principal Agent must sign and stamp the documents, failure to obtain both signatures and stamps will result in no allocation of points

<b>1. PROJECT NAME AND SCOPE:</b>
-----------------------------------

**Principal agent:** .....

**Client:** .....

**Contract Amount:** .....

**Contract Duration:**.....

**Actual Contract Duration:**.....

Description/performance	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
Quality of Office administration					
Quality of site management					
Competence of foreman					
Co-operation during contract					
Quality of workmanship					
Quality of materials					
Project management					
Rectification of condemned work					
Tidiness of site					

Any other remarks considered necessary to assist in evaluation of the contractor?  
 .....  
 .....

**Name of Client Representative:** .....

**Designation:** .....

**Telephone:** .....

**Client Signature:** ..... **Date:** .....

Stamp
-------

**T2.1.20 EVALUATION SCHEDULE: CLIENT REFERENCES**

The Tenderer shall provide details of his performance on each of the previous projects listed in the “Relevant Experience” returnable schedule. “Client Reference Scorecards” will be completed by each of the respective Clients for the projects listed in the “Relevant Experience” returnable schedule.

The following are to be completed by the Client or Principal Agent and is to be supported in each case by a letter of award and the works completion certificate. Client or Principal Agent must sign and stamp the documents, failure to obtain both signatures and stamps will result in no allocation of points

<b>1. PROJECT NAME AND SCOPE:</b>
-----------------------------------

**Principal agent:** .....

**Client:** .....

**Contract Amount:** .....

**Contract Duration:**.....

**Actual Contract Duration:**.....

Description/performance	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
Quality of Office administration					
Quality of site management					
Competence of foreman					
Co-operation during contract					
Quality of workmanship					
Quality of materials					
Project management					
Rectification of condemned work					
Tidiness of site					

Any other remarks considered necessary to assist in evaluation of the contractor?  
 .....  
 .....

**Name of Client Representative:** .....

**Designation:** .....

**Telephone:** .....

**Client Signature:** ..... **Date:** .....

Stamp
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**Relevant Experience (Returnable schedule)**

The Tenderer shall provide details of his performance on each of the previous relevant projects. Failure to complete the table below will result in no points allocated. No “see attached” will be accepted

<b>LIST THE FIVE LARGEST PROJECTS COMPLETED BY YOUR FIRM IN THE LAST FIVE YEARS</b>			
<i>Name of Project Completed and Scope of work</i>	<i>Name of Project Manager &amp; Telephone no.</i>	<i>Name of Client &amp; Telephone no.</i>	<i>Value of Project</i>

**Record of Addenda to tender documents**

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:		
	<b>Date</b>	<b>Title or Details</b>
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Attach additional pages if more space is required.

Signed	Date
Name	Position
Identity number	
Tenderer	

## **SCHEDULE OF PLANT AND EQUIPMENT**

The following are lists of major items of relevant equipment that I / we presently own or lease and will have available for this contract if my / our tender is accepted. **(Please attach proof of ownership of plant owned)**

**(a) Details of major equipment owned by me / us and immediately available for this contract.**

<b>PLANT AND EQUIPMENT</b>	<b>DESCRIPTION (type, size, capacity etc)</b>	<b>LICENSE NUMBER</b>	<b>YEAR OF MANUFACTURE</b>
<i>Plant and Equipment 1</i>			
<i>Plant and Equipment 2</i>			
<i>Plant and Equipment 3</i>			
<i>Plant and Equipment 4</i>			
<i>Plant and Equipment 5</i>			
<i>Plant and Equipment 6</i>			

*Attach additional pages if more space is required*

**(b) Details of major equipment that will be hired, or acquired for this contract if my / our tender is accepted**

<b>PLANT AND EQUIPMENT</b>	<b>DESCRIPTION (type, size, capacity etc)</b>	<b>LICENSE NUMBER</b>	<b>HOW ACQUIRED</b>	
			<b>HIRE/ BUY</b>	<b>SOURCE</b>
<i>Plant and Equipment 1</i>				
<i>Plant and Equipment 2</i>				
<i>Plant and Equipment 3</i>				
<i>Plant and Equipment 4</i>				
<i>Plant and Equipment 5</i>				
<i>Plant and Equipment 6</i>				

*Attach additional pages if more space is required*

The Tenderer undertakes to bring onto site without additional cost to the Employer any additional plant not listed but which may be necessary to complete the contract within the specified contract period.

***Failure to complete this form properly and correctly, will lead to the conclusion that the tenderer does not have the necessary plant and equipment resources at his disposal, which will prejudice his tender.***

SIGNATURE: ..... IDENTITY NUMBER: .....

*(of person authorised to sign on behalf of the Tenderer)*

*DATE: .....*





## KEY PERSONNEL

In terms of the Project Specification and the Conditions of Tender, unskilled workers may only be brought in from outside the local community if such personnel are not available locally.

The Tenderer shall list below the personnel which he intends to utilize on the Works, including key personnel which may have to be brought in from outside if not available locally.

CATEGORY OF EMPLOYEE	NUMBER OF PERSONS					
	KEY PERSONNEL, PART OF THE CONTRACTOR'S ORGANISATION		KEY PERSONNEL TO BE IMPORTED IF NOT AVAILABLE LOCALLY		UNSKILLED PERSONNEL TO BE RECRUITED FROM LOCAL COMMUNITY	
	HDI	NON-HDI	HDI	NON-HDI	HDI	NON-HDI
Site Agent, Project Managers						
Foremen, Quality Control and Safety Personnel						
Technicians, Surveyors, etc						
Artisans and other Skilled workers						
Plant Operators						
Others: ..... ..... ..... .....						

The Tenderer shall attach hereto the *curricula vitae*, in the form included hereafter, of at least the site agent and the project manager. The information is necessary for evaluation of the tender.

SIGNATURE: ..... IDENTITY NUMBER: .....

(of person authorised to sign on behalf of the Tenderer)

DATE:.....

***This section must be completed in full and aligned to attachments, organogram submitted failure to do so will result in no allocation of points***

**CURRICULUM VITAE OF KEY PERSONNEL (COMPULSORY)**

***(CVs and Certified Qualifications that are not older than 6 months are required only for site agent and contract or project manager).***

**CV FOR CONTRACT OR PROJECT MANAGER**

<b>Name:</b>	<b>Date of birth:</b>
<b>Profession:</b>	<b>Nationality:</b>
<b>Qualifications:</b>	
<b>Professional Registration Number:</b>	
<b>Name of Employer (firm):</b>	
<b>Current position:</b>	<b>Years with firm:</b>
<b><u>Employment Record:</u></b>	
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<b><u>Experience Record Pertinent to Required service:</u></b>	
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**Certification:**

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications, and my experience.

SIGNATURE: ..... IDENTITY NUMBER: .....

*(of person authorized to sign on behalf of the Tenderer)*

DATE:.....



**CV FOR TECHNICIAN / ARTISAN**

<b>Name:</b>	<b>Date of birth:</b>
<b>Profession:</b>	<b>Nationality:</b>
<b>Qualifications:</b>	
<b>Professional Registration Number:</b>	
<b>Name of Employer (firm):</b>	
<b>Current position:</b>	<b>Years with firm:</b>
<b><u>Employment Record:</u></b>	
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<b><u>Experience Record Pertinent to Required service:</u></b>	
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**Certification:**

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.

.....  
SIGNATURE OF THE INCUMBANT IN THE SCHEDULE

.....  
DATE

.....  
INCUMBANT'S IDENTITY NUMBER



## **PRELIMINARY PROGRAMME**

The Tenderer shall **attach a preliminary programme reflecting the proposed sequence and tempo of execution of the various activities comprising the work for this Contract.** The programme shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with allother aspects of his Tender.

**NOTE: ONLY COMPUTIRSED PRELIMINARY PROGRAM WILL BE CONSIDERED**

### **PROGRAMME (EXAMPLE ONLY)**

<b>ACTIVITY</b>	<b>MONTHS</b>									
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>

*[Note: The programme must be based on the completion time as specified in the Contract Data. No other completion time that may be indicated on this programme will be regarded as an alternative offer, unless it is listed in Table (b) of Form I hereafter and supported by a detailed statement to that effect, all as specified in the Tender Data]*

*The following aspects of the preliminary programme will be considered:*

- *Programme Heading*
- *The programme is specific and tailored for the execution of the project, is comprehensive and is logically correct*
- *The activities are well articulated with headings and sub headings and show relevant milestones*
- *The activities that occur simultaneously are showing*
- *The activities that depend on each other are linked*
- *The activities that required stages are indicated*
- *Milestones are shown*
- *There are resources aligned / embedded to the programme*
- *Cause and effect of the programme can be determined such that the critical path is shown*
- *The lead times and lag times are clear and being considered for ordering of materials and staffing requirements*
- *Non-Working Days and Been Taken Into Consideration*
- *Has the Programme been divided into Phases*
- *The Cash Flow to Relate to the Programme*
- *The programme to show resource histogram*
- *The Resource Histogram to Show Unskilled Labour*

SIGNATURE: ..... IDENTITY NUMBER: .....

*(of person authorised to sign on behalf of the Tenderer)*      DATE:.....

**PART A**  
**INVITATION TO BID**

<b>YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE INDEPENDENT DEVELOPMENT TRUST</b>					
BID NUMBER:	<b>DOEEC/04/2022/2023</b>	CLOSING DATE:	<b>11 July 2022</b>	CLOSING TIME:	<b>11h00</b>
DESCRIPTION	<p>Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities: Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block. Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets)</p>				
<b>BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED</b>					
<b>Independent Development Trust Offices</b>					
<b>Palm Square Business Park</b>					
<b>Silverwood House</b>					
<b>Bonza Bay Road</b>					
<b>Beacon Bay</b>					
<b>BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO</b>			<b>TECHNICAL ENQUIRIES MAY BE DIRECTED TO:</b>		
CONTACT PERSON	Nomnikelo Dyasi		CONTACT PERSON	Derek Felton	
TELEPHONE NUMBER	043 711 6000		TELEPHONE NUMBER	043 743 3889	
FACSIMILE NUMBER			FACSIMILE NUMBER		
E-MAIL ADDRESS	nomnikelon@idt.org.za		E-MAIL ADDRESS	derek@noael.co.za	
<b>SUPPLIER INFORMATION</b>					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		<b>OR</b>	CENTRAL SUPPLIER DATABASE No:	MAAA
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX]		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	[TICK APPLICABLE BOX]	
	Yes	No		Yes	No



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**[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]**

<p><b>a) ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?</b></p>	<p><input type="checkbox"/>Yes                      <input type="checkbox"/>No [IF YES ENCLOSE PROOF]</p>	<p><b>b) ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?</b></p>	<p><input type="checkbox"/>Yes                      <input type="checkbox"/>No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]</p>
----------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------

**QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS**

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?  YES  NO

DOES THE ENTITY HAVE A BRANCH IN THE RSA?  YES  NO

DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?  YES  NO

DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?  YES  NO

IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?  YES  NO

**IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.**

## PART B

### TERMS AND CONDITIONS FOR BIDDING

<b>1. BID SUBMISSION:</b>
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED- (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE JOINT BUILDING CONTRACT COMMITTEE (JBCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.4. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A JBCC AGREEMENT.
<b>2. TAX COMPLIANCE REQUIREMENTS</b>
2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

**NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.**

SIGNATURE OF BIDDER: .....

CAPACITY UNDER WHICH THIS BID IS SIGNED: .....  
(Proof of authority must be submitted e.g. company resolution)

DATE: .....

# BIDDER'S DISCLOSURE

## 1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

## 2. Bidder's declaration

- 2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest<sup>1</sup> in the enterprise, employed by the state? **YES/NO**
- 2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

- 2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**
- 2.2.1 If so, furnish particulars:  
.....  
.....
- 2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**
- 2.3.1 If so, furnish particulars:  
.....  
.....

**1 The power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise .**

**3 DECLARATION**

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium<sup>2</sup> will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.  
 I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF  
 PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN  
 MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

Signature	Date
Position	Name of bidder

<sup>3</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL  
PROCUREMENT REGULATIONS 2017**

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

**NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.**

**1. GENERAL CONDITIONS**

1.1 The following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2

- a) The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the **80/20** preference point system shall be applicable: or
- b) The 80/20 preference point system will be applicable to this tender

1.3 Points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contributor.

1.4 The maximum points for this bid are allocated as follows:

	<b>POINTS</b>
<b>PRICE</b>	80
<b>B-BBEE STATUS LEVEL OF CONTRIBUTOR</b>	20
<b>Total points for Price and B-BBEE must not exceed</b>	<b>100</b>

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

## 2. DEFINITIONS

- (a) “**B-BBEE**” means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) “**B-BBEE status level of contributor**” means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) “**bid**” means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) “**Broad-Based Black Economic Empowerment Act**” means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) “**EME**” means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) “**functionality**” means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) “**prices**” includes all applicable taxes less all unconditional discounts.
- (h) “**Proof of B-BBEE status level of contributor**” means:
  - 1) B-BBEE Status level certificate issued by an authorized body or person.
  - 2) A Sworn affidavit as prescribed by the B-BBEE Codes of good practice.
  - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) “**QSE**” means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) “**Rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

## 3. POINTS AWARDED FOR PRICE

### 3.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ P_s = 80 \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right) & \text{or} & P_s = 90 \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \end{array}$$

Where

P<sub>s</sub> = Points scored for price of bid under consideration

P<sub>t</sub> = Price of bid under consideration

P<sub>min</sub> = Price of lowest acceptable bid

**4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR**

4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

<b>B-BBEE Status Level of Contributor</b>	<b>Number of points (90/10 system)</b>	<b>Number of points (80/20 system)</b>
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

**5. BID DECLARATION**

5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

**6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1**

6.1 B-BBEE Status Level of Contributor: . = (maximum of 10 or 20 points)  
(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.)

**7. SUB-CONTRACTING**

7.1 Will any portion of the contract be sub-contracted?

**(Tick applicable box)**

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted..... %
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE

**(Tick applicable box)**

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:

<b>Designated Group: An EME or QSE which is at least 51% owned by:</b>	<b>EME</b>	<b>QSE</b>
	<b>√</b>	<b>√</b>
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
<b>OR</b>		
Any EME		
Any QSE		

**8. DECLARATION WITH REGARD TO COMPANY/FIRM**

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

**8.4 TYPE OF COMPANY/ FIRM**

Partnership/Joint Venture / Consortium

One person business/sole propriety

Close corporation

Company

(Pty) Limited

[TICK APPLICABLE BOX]

**8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES**

.....

.....

.....

.....

.....



8.6 COMPANY CLASSIFICATION

- Manufacturer
  - Supplier
  - Professional service provider
  - Other service providers, e.g. transporter, etc.
- [TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business: .....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificates, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct.
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct.
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
  - (a) disqualify the person from the bidding process.
  - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct.
  - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation.
  - (d) recommend that the bidder or contractor, its shareholders, and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
  - (e) forward the matter for criminal prosecution.

<p>WITNESSES</p> <p>1. ....</p> <p>2. ....</p>
------------------------------------------------

<p>.....</p> <p>SIGNATURE(S) OF BIDDERS(S)</p>
<p>DATE: .....</p> <p>ADDRESS .....</p>

## DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Municipal Bidding Document (MBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

### 1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.
- 1.2. Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

- x is the imported content in Rand  
y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) on the date of advertisement of the bid as indicated in paragraph 3.1 below.

**The SABS approved technical specification number SATS 1286:2011 is accessible on [http://www.thedti.gov.za/industrial development/ip.jsp](http://www.thedti.gov.za/industrial%20development/ip.jsp) at no cost.**

1.6 A bid may be disqualified if –

(a) this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

3.

Item	Description of Service	Stipulated Threshold	Minimum
A	Roof Sheeting	100%	
B	Reinforcing bars	100%	
C	Window Frames	100%	
D	Door Frames	100%	
E	Gutters and Downpipes	100%	
F	Wire Products	100%	
G	Fasteners	100%	
H	School Furniture	100%	

3. Does any portion of the services, works or goods offered have any imported content?

(Tick applicable box)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on [www.reservebank.co.za](http://www.reservebank.co.za).

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

**LOCAL CONTENT DECLARATION**  
**(REFER TO ANNEX B OF SATS 1286:2011)**

**LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)**

**IN RESPECT OF BID NO.** .....

**ISSUED BY:** (Procurement Authority / Name of Institution):

.....  
 NB

1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on <http://www.thdti.gov.za/industrial-development/ip.jsp>. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, .....(full names),

do hereby declare, in my capacity as .....

of .....(name of bidder entity),  
 the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have satisfied myself that:

- (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (ii) the declaration templates have been audited and certified to be correct.

(c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

**If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.**

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

**SIGNATURE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**WITNESS No. 1** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**WITNESS No. 2** \_\_\_\_\_

**DATE:** \_\_\_\_\_

## **ANNEXURE C, D and E**

## Annex C

### Local Content Declaration - Summary Schedule

<i>(C1)</i>	<b>Tender No.</b>	DoEEC/04/2022/2023	
<i>(C2)</i>	<b>Tender description:</b>	Riverview PS Completion	
<i>(C3)</i>	<b>Designated product(s)</b>	Steel for Construction	
<i>(C4)</i>	<b>Tender Authority:</b>	IDT	
<i>(C5)</i>	<b>Tendering Entity name:</b>		
<i>(C6)</i>	<b>Tender Exchange Rate:</b>	US\$ <input style="width: 50px;" type="text"/>	EU <input style="width: 50px;" type="text"/>
<i>(C7)</i>	<b>Specified local content %</b>		

**Note: VAT to be excluded from all calculations**

GBP

#### Calculation of local content

Tender item No's <i>(C8)</i>	List of items <i>(C9)</i>	Tender price - each (excl VAT) <i>(C10)</i>	Exempted imported value <i>(C11)</i>	Tender value net of exempted imported content <i>(C12)</i>	Imported value <i>(C13)</i>	Local value <i>(C14)</i>	Local content % (per item) <i>(C15)</i>
18/40	8mm Diameter mild steel reinforcing						
19/40	12mm Diameter high tensile steel reinforcing						
20/40	10mm Diameter high tensile steel reinforcing						
6/44	8mm Diameter mild steel reinforcing						
7/45	20mm Diameter high tensile steel reinforcing						
8/45	10mm Diameter high tensile steel reinforcing						
21/147	10mm Diameter mild steel reinforcing						
22/147	25mm Diameter high tensile steel reinforcing						
23/147	20mm Diameter high tensile steel reinforcing						
24/147	16mm Diameter high tensile steel reinforcing						
25/147	12mm Diameter high tensile steel reinforcing						
26/147	10mm Diameter high tensile steel reinforcing						
58/193	12mm Diameter high tensile steel reinforcing						
59/193	10mm Diameter high tensile steel reinforcing						
89/196	12mm Diameter high tensile steel reinforcing						
90/196	10mm Diameter high tensile steel reinforcing						
138/201	12mm Diameter high tensile steel reinforcing						
139/201	10mm Diameter high tensile steel reinforcing						
174/205	12mm Diameter high tensile steel reinforcing						
175/205	10mm Diameter high tensile steel reinforcing						
262/214	8mm Diameter mild steel reinforcing						
263/214	16mm Diameter high tensile steel reinforcing						
264/214	12mm Diameter high tensile steel reinforcing						
309/218	12mm Diameter mild steel reinforcing						
310/218	10mm Diameter mild steel reinforcing						
350/222	10mm Diameter mild steel reinforcing						
351/222	12mm Diameter high tensile steel reinforcing						
352/222	10mm Diameter high tensile steel reinforcing						
268/215	60 x 60 x 5mm x 4,57kg/m Angle section columns						
269/215	70 x 70 x 6mm x 6,38kg/m Angle section columns						
270/215	50 x 50 x 5mm x 3,77kg/m Angle section beams						
271/215	60 x 60 x 6mm x 5,42kg/m Angle section beams						
272/215	160 x 83 x 5mm x 15,8kg/m I-section beams						

#### Tender summary

Tender Qty <i>(C16)</i>	Total tender value <i>(C17)</i>	Total exempted imported content <i>(C18)</i>	Total Imported content <i>(C19)</i>
0.73			
4.12			
1.24			
0.01			
0.02			
0.02			
0.10			
0.47			
0.29			
3.92			
0.30			
2.27			
0.04			
0.08			
1.10			
2.19			
0.25			
0.25			
0.07			
0.12			
0.01			
0.40			
0.01			
0.36			
0.16			
0.22			
0.04			
0.09			
0.08			
0.14			
0.14			
0.09			
0.28			

Continues on next page

## Annex C

## Calculation of local content

Tender item No's	List of items	Tender price - each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
273/215	60 x 60 x 5mm x 4,56kg/m Angle section railing						
274/215	60 x 60 x 6mm x 5,42kg/m Angle section cross bracing						
275/215	High tensile bolts (Grade 8.8)						
137/61	Hot dip galvanized bolts, etc.						
75/82	Hot dip galvanized bolts, etc.						
73/98	Hot dip galvanized bolts, etc.						
73/116	Hot dip galvanized bolts, etc.						
87/131	Hot dip galvanized bolts, etc.						
278/216	70 x 70 x 6mm x 6,38kg/m Angle section stringer						
279/216	50 x 8mm Flat section vertical						
280/216	50 x 8mm Flat section hoop						
281/216	60 x 8mm Flat section horizontal						
33/47	140 x 150mm Aluminium Ogee eaves gutter						
14/72	140 x 150mm Aluminium Ogee eaves gutter						
14/89	140 x 150mm Aluminium Ogee eaves gutter						
15/106	140 x 150mm Aluminium Ogee eaves gutter						
17/121	140 x 150mm Aluminium Ogee eaves gutter						
5/154	140 x 150mm Aluminium Ogee eaves gutter						
371/224	140 x 150mm Aluminium Ogee eaves gutter						
125/58	Aluminium window size 1000 x 650mm high						
126/58	Aluminium window size 1000 x 950mm high						
127/58	Aluminium window size 1000 x 1250mm high						
128/58	Aluminium window size 1200 x 900mm high						
71/81	Aluminium window size 1000 x 1248mm high						
69/98	Aluminium window size 1000 x 1248mm high						
68/115	Aluminium window size 890 x 460mm high						
69/115	Aluminium window size 1000 x 1248mm high						
80/130	Aluminium window size 1200 x 900mm high						
81/130	Aluminium window size 1000 x 950mm high						
82/131	Aluminium window size 1000 x 1248mm high						
83/131	Aluminium window size 1485 x 1250mm high						
1/167	Aluminium window size 533 x 650mm high						
2/167	Aluminium window size 1000 x 650mm high						
129/59	Aluminium double door size 1600 x 2064mm high						
130/59	Aluminium double door size 1600 x 2064mm high						
84/131	Aluminium single door size 900 x 2032mm high						
107/198	75 x 50mm Flat section top or bottom rail						
108/198	75 x 50mm Flat section in vertical end post						
109/198	75 x 50mm Flat section to baseplate and bottom rail						
110/198	50 x 50mm Flat section intermediate rail						
111/198	25 x 25mm Vertical balusters to intermediate rail						
112/198	25 x 25mm Vertical balusters to top rail						
114/198	100 x 100 x 5mm Thick baseplate welded						
134/60	Steel security gate size 1000 x 2100mm high						
135/60	Steel security gate size 1860 x 2100mm high						
72/81	Steel security gate size 1000 x 2100mm high						
73/81	Steel security gate size 990 x 2132mm high						

## Tender summary

Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C16)	(C17)	(C18)	(C19)
0.06			
0.34			
0.10			
2			
3			
3			
6			
2			
0.11			
27			
45			
182			
63			
43			
44			
92			
36			
55			
21			
3			
7			
2			
1			
8			
8			
4			
28			
1			
1			
4			
1			
23			
8			
3			
2			
1			
330			
77			
35			
165			
957			
10			
104			
2			
2			
1			
1			

Continues on next page



## Annex C

## Calculation of local content

Tender item No's	List of items	Tender price - each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
70/98	Steel security gate size 1000 x 2100mm high						
71/98	Steel security gate size 990 x 2132mm high						
71/115	Steel security gate size 1000 x 2100mm high						
85/131	Steel security gate size 990 x 2132mm high						
153/202	Steel double swing gate size 1894 x 2200mm high						
154/203	Steel double swing gate size 3600 x 2200mm high						
397/227	Steel pedestrian gate size 1000 x 1800mm high						
394/226	2,5mm thick x 100mm high serrated rail						
395/226	1800mm high Econo Mesh fencing						
396/226	85 – 45mm tapering post 2400mm high						

## Tender summary

Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C16)	(C17)	(C18)	(C19)
1			
1			
4			
1			
1			
1			
1			
406			
494			
149			

(C20) Total tender value R

(C21) Total Exempt imported content R

(C22) Total Tender value net of exempt imported content R

(C23) Total Imported content R

(C24) Total local content R

(C25) Average local content % of tender

Signature of Tenderer from Annex B

Date: \_\_\_\_\_



## Annex E

## Local Content Declaration - Supporting Schedule to Annex C

(E1) Tender No.	DoEEC/04/2022/2023
(E2) Tender description:	Riverview PS Completion
(E3) Designated products:	Steel for Construction
(E4) Tender Authority:	IDT
(E5) Tendering Entity name:	

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	(E7)	(E8)
	8mm Diameter mild steel reinforcing		
	12mm Diameter high tensile steel reinforcing		
	10mm Diameter high tensile steel reinforcing		
	8mm Diameter mild steel reinforcing		
	20mm Diameter high tensile steel reinforcing		
	10mm Diameter high tensile steel reinforcing		
	10mm Diameter mild steel reinforcing		
	25mm Diameter high tensile steel reinforcing		
	20mm Diameter high tensile steel reinforcing		
	16mm Diameter high tensile steel reinforcing		
	12mm Diameter high tensile steel reinforcing		
	10mm Diameter high tensile steel reinforcing		
	12mm Diameter high tensile steel reinforcing		
	10mm Diameter high tensile steel reinforcing		
	12mm Diameter high tensile steel reinforcing		
	10mm Diameter high tensile steel reinforcing		
	12mm Diameter high tensile steel reinforcing		
	10mm Diameter high tensile steel reinforcing		
	12mm Diameter high tensile steel reinforcing		
	10mm Diameter high tensile steel reinforcing		
	8mm Diameter mild steel reinforcing		
	16mm Diameter high tensile steel reinforcing		
	12mm Diameter high tensile steel reinforcing		
	12mm Diameter mild steel reinforcing		
	10mm Diameter mild steel reinforcing		
	10mm Diameter mild steel reinforcing		
	12mm Diameter high tensile steel reinforcing		
	10mm Diameter high tensile steel reinforcing		
	60 x 60 x 5mm x 4,57kg/m Angle section columns		
	70 x 70 x 6mm x 6,38kg/m Angle section columns		
	50 x 50 x 5mm x 3,77kg/m Angle section beams		
	60 x 60 x 6mm x 5,42kg/m Angle section beams		
	160 x 83 x 5mm x 15,8kg/m I-section beams		
	60 x 60 x 5mm x 4,56kg/m Angle section railing		
	60 x 60 x 6mm x 5,42kg/m Angle section cross bracing		
	High tensile bolts (Grade 8.8)		
	Hot dip galvanized bolts, etc.		
	Hot dip galvanized bolts, etc.		
	Hot dip galvanized bolts, etc.		
	Hot dip galvanized bolts, etc.		
	Hot dip galvanized bolts, etc.		
	70 x 70 x 6mm x 6,38kg/m Angle section stringer		
	50 x 8mm Flat section vertical		
	50 x 8mm Flat section hoop		
	60 x 8mm Flat section horizontal		
	140 x 150mm Aluminium Ogee eaves gutter		
	140 x 150mm Aluminium Ogee eaves gutter		
	140 x 150mm Aluminium Ogee eaves gutter		
	140 x 150mm Aluminium Ogee eaves gutter		
	140 x 150mm Aluminium Ogee eaves gutter		
	140 x 150mm Aluminium Ogee eaves gutter		
	Aluminium window size 1000 x 650mm high		
	Aluminium window size 1000 x 950mm high		

Continues on next page

## Annex E

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	<i>(E6)</i>	<i>(E7)</i>	<i>(E8)</i>
	Aluminium window size 1000 x 1250mm high		
	Aluminium window size 1200 x 900mm high		
	Aluminium window size 1000 x 1248mm high		
	Aluminium window size 1000 x 1248mm high		
	Aluminium window size 890 x 460mm high		
	Aluminium window size 1000 x 1248mm high		
	Aluminium window size 1200 x 900mm high		
	Aluminium window size 1000 x 950mm high		
	Aluminium window size 1000 x 1248mm high		
	Aluminium window size 1485 x 1250mm high		
	Aluminium window size 533 x 650mm high		
	Aluminium window size 1000 x 650mm high		
	Aluminium double door size 1600 x 2064mm high		
	Aluminium double door size 1600 x 2064mm high		
	Aluminium single door size 900 x 2032mm high		
	75 x 50mm Flat section top or bottom rail		
	75 x 50mm Flat section in vertical end post		
	75 x 50mm Flat section to baseplate and bottom rail		
	50 x 50mm Flat section intermediate rail		
	25 x 25mm Vertical balusters to intermediate rail		
	25 x 25mm Vertical balusters to top rail		
	100 x 100 x 5mm Thick baseplate welded		
	Steel security gate size 1000 x 2100mm high		
	Steel security gate size 1860 x 2100mm high		
	Steel security gate size 1000 x 2100mm high		
	Steel security gate size 990 x 2132mm high		
	Steel security gate size 1000 x 2100mm high		
	Steel security gate size 990 x 2132mm high		
	Steel security gate size 1000 x 2100mm high		
	Steel security gate size 990 x 2132mm high		
	Steel double swing gate size 1894 x 2200mm high		
	Steel double swing gate size 3600 x 2200mm high		
	Steel pedestrian gate size 1000 x 1800mm high		
	2,5mm thick x 100mm high serrated rail		
	1800mm high Econo Mesh fencing		
	85 – 45mm tapering post 2400mm high		
	<b>(E9) Total local products (Goods, Services and Works)</b>		

(E10) **Manpower costs** (Tenderer's manpower cost)(E11) **Factory overheads** (Rental, depreciation & amortisation, utility costs, consumables, etc.)(E12) **Administration overheads and mark-up** (Marketing, insurance, financing, interest, etc.)**(E13) Total local content****This total must correspond with Annex C - C24****Signature of Tenderer from Annex B**

Date: \_\_\_\_\_

**INDEPENDENT DEVELOPMENT TRUST**

**C1.1 Form of Offer and Acceptance**

**Offer**

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:

Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.

Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets).

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

**THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:**

.....

..... Rand (in words);

R..... (in figures)

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature .....	Date .....
Name .....	Identity number .....
Capacity .....	

**for the tenderer**

(Name and address of organization) .....

Name and signature of witness .....

**NOTE: Failure of a Bidder to complete and sign this part of the tender form (offer) in full including witnessing will invalidate the tender. Any blank spaces left will invalidate this offer.**

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part C1: Agreements and contract data, (which includes this agreement)
- Part C2: Pricing data
- Part C3: Scope of work.
- Part C4: Site information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature ..... Date .....  
Name ..... Identity number .....  
Capacity .....

**for the Employer**  
INDEPENDENT DEVELOPMENT TRUST  
Palm Square Business Park  
Bonza Bay Road  
Silverwood House  
Beacon Bay  
East London 5241

Name and signature .....

of witness .....

Date .....

### Schedule of Deviations

1 Subject .....

    Details .....

.....

.....

.....

2 Subject .....

    Details .....

.....

.....

.....

3 Subject .....

    Details .....

.....

.....

.....

4 Subject .....

    Details .....

.....

.....

.....

5 Subject .....

    Details .....

.....

.....

.....

By the duly authorized representatives signing this agreement, the employer and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

## INDEPENDENT DEVELOPMENT TRUST

Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.

Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets)..

### C1.2 Contract Data for BID NO: DOEEC/04/2022/2023

The Conditions of Contract are clauses 1 to 41 of the **JBCC Series 2000 Principal Building Agreement (Edition 4.1 March 2005)** published by the Joint Building Contracts Committee.

Copies of these conditions of contract may be obtained from the Association of South African Quantity Surveyors (011-3154140), Master Builders Association (011-205-9000; 057-3526269) South African Association of Consulting Engineers (011-4632022) or South African Institute of Architects (051-4474909; 011-4860684; 053-8312014;)

The JBCC Principal Building Agreement makes several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the JBCC Principal Building Agreement.

Each item of data given below is cross-referenced to the clause in the JBCC Principal Building Agreement to which it mainly applies.

#### The additions, deletions and alterations to the JBCC Principal Agreement are:

Clause	Additions, deletions and alterations
--------	--------------------------------------

- |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | <p>Replace the following definitions in <b>DEFINITIONS AND INTERPRETATIONS</b> with the following wording:</p> <p><b>AGREEMENT</b> means the agreement arising from the signing of the Form of Offer and Acceptance by the parties.</p> <p><b>BILLS OF QUANTITIES</b> means the document drawn up in accordance with the Pricing Instructions contained in the Pricing Data.</p> <p><b>CONSTRUCTION PERIOD</b> means the period commencing on the date of site hand over and ending on the date of practical completion.</p> <p><b>CONTRACT DOCUMENTS</b> means the Agreement and all documents referenced therein.</p> <p><b>CONTRACT DRAWINGS</b> means the drawings listed in the Scope of Work.</p> <p><b>CONTRACT SUM</b> means the total of prices in the Form of Offer and Acceptance.</p> <p><b>SCHEDULE</b> means the variables listed in the Contract Data.</p> <p><b>CORRUPT PRACTICE</b> means the offering, giving, receiving, and soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution</p> <p><b>FRAUDULENT PRACTICE</b> means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open competition.</p> <p><b>INTEREST</b> means the interest rates applicable to this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).</p> |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



**SECURITY** means the form of security provided by the **employer** or **contractor**, as stated in the **schedule**, from which the **contractor** or **employer** may recover expense or loss.

1.6 Any notice given may be delivered by hand, sent by prepaid registered post or telefax. Notice shall be presumed to have been duly given when:  
Delete sub-clause 1.6.4

3.5 Delete sub-clause 3.5

3.6 Delete sub-clause 3.6.

3.7 Add to the end thereof:

The **contractor** shall supply and keep a copy of the **JBCC** Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the site, to which the **employer**, **principal agent** and **agents** shall have access at all times.

3.9 Delete sub-clause 3.9

3.10 Replace the second reference to "**principal agent**" with the word "**employer**".

4.3 No clause

5.1.2 Under clause 41 – include reference 32.6.3; 34.3; 34.4 and 38.5.8 in terms of which the **employer** has retained its authority and has not given a mandate to the **principal agent** and in terms of which the **employer** shall sign all documents.

9 Clause 9.0 is amended by adding Clause 9.1.4:

The **contractor** indemnifies and holds harmless the **employer** against all liability, losses, claims, damages, penalties, actions, proceedings or judgments (collectively referred to as "Losses") arising from any infringement of letters, patent design, trademark, name, copyright or other protected rights in respect of any machine, plant, work, materials, thing, system or method of using, fixing, working or arrangement used or fixed or supplied by the **contractor**, but such indemnity shall not cover any use of the equipment of part thereof otherwise than in accordance with the provisions of the specification. All payments and royalty's payable in one sum or by installments or otherwise shall be included by the **contractor** in the price and shall be paid by him to those to whom they may be payable. The **contractor** shall reimburse the **employer** for all legal and other costs and expenses, including without limitation attorney's fees on attorney-client scale incurred by the **employer** in connection with investigation, defending or settling any Losses in connection with pending or threatening litigation in which the **employer** is a party.

10.5 Add the following as 10.5:

**Damage to the works**

(a) Without any way limiting the **contractor's** obligations in terms of the contract, the **contractor** shall

bear the full risk of damage to and/or destruction of the **works** by whatever cause during construction of the **works** and hereby indemnifies and holds harmless the **employer** against any such damage. The **contractor** shall take such precautions and security measures and other steps for the protection and security of the **works** as the **contractor** may deem necessary.

(b) The **contractor** shall at all times proceed immediately to remove or dispose of any debris arising from damage or destruction of the **works** and to rebuild, restore, replace and/or repair the **works**.

(c) The **employer** shall carry the risk of damage to or destruction of the **works** and materials paid for by  
The **employer** that is the result of the expected risks as set out in 10.6.

(d) Where the **employer** bears the risk in terms of this contract, the **contractor** shall, if requested to do so, reinstate any damage or destroyed portions of the **works** and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof.

10.6 Add the following as 10.6:

#### **Injury to Persons or loss of or damage to Properties**

- (a) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable.
- (b) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person, arising out of or in the course of or by reason of the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable.
- (c) The **contractor** shall upon receiving a **contract instruction** from the **principal agent** cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the **employer** shall be entitled to cause it to be made good and to recover the cost therefore from the **contractor** or to deduct the same from amounts due to the **contractor**.
- (d) The **contractor** shall be responsible for the protection and safety of such portions of the premises placed under his control by the **employer** for the purpose of executing the **works** until the issue of the **certificate of practical completion**.
- (e) Where the execution of the **works** involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the **contractor** shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the **works** has been completed.
- (f) The **contractor** shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and / or repair such property and to execute the **works**.

10.7 Add the following as 10.7:

#### **HIGH RISK INSURANCE**

In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions which might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:

##### **10.7.1 Damage to the works**

The **contractor** shall, from the **commencement date** of the **works** until the date of the **certificate of practical completion**, bear the full risk of and hereby indemnifies and hold harmless the **employer** against any damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he may deem necessary.

When so instructed to do so by the **principal agent**, the **contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, replace and/or repair the **works**, at the **contractor's** own costs.

##### **10.7.2 Injury to persons or loss of or damage to property**

The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above.

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of construction.

10.7.3 It is the responsibility of the **contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the **contractor's** obligations in terms of the contract, the **contractor** shall, within twenty-one (21) **calendar days** of the **commencement date** but before commencement of the **works** submit to the **employer** proof of such insurance policy, if requested to do so.

10.7.4 The **employer** shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred subsequent upon the **contractor's** default of his obligations as set out in 10.7.1, 10.7.2 and 10.7.3. Such losses or damages may be recovered from the **contractor** or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered on indivisible whole.

15.1.4 Add 15.1.4 as follows:

An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) **calendar days** of date of acceptance of the tender.

15.2.1 Under 41: Amend to read as follows:

Give the **contractor** possession of the **site** within ten (10) **working days** of the **contractor** complying with the terms of 15.1

20.1.3 No clause.

21 Replace sub-clauses 21.1.2 to 21.1.4 and 21.2 to 21.6 with the following:

The **contractor** and **principal agent** shall appoint a **selected subcontractor** in accordance with the provisions of the Scope of Work.

29 Clause 29.0 is amended by: -

i) The addition of the following clauses: -

Clause 29.9

"Revision to the date for **practical completion** shall only be considered when work on the critical path of the agreed programme for the works is delayed."

ii) Clause 29.10 – Acceleration

Clause 29.10.1

Irrespective of whether or not the **principal agent** rules that the **contractor** is entitled to an extension of time or a revision of the date for **practical completion**, the **principal agent** shall nevertheless, at any time, be entitled to instruct the **contractor** in writing to accelerate the progress of the remaining **works** to ensure that the **works** are completed by the original date for **practical completion** or revised date as the case may be.

Clause 29.10.2

Upon receipt of such instruction, the **contractor** shall take all necessary steps to ensure that the **works** are completed timeously including the provision by him of additional resources, plant, manpower, etc. and the working overtime or additional overtime beyond that contemplated at the time of tender (at all times adhering to the regulations and requirements of all authorities) and by all other adequate and proper means and methods. The **contractor** shall prove that such steps are being taken if called upon to do so.

Clause 29.10.3

The **contractor's** entitlement to compensation arising out of or in respect of any revision to the date for **practical completion** that may have been granted by the **principal agent** or alternatively where the **principal agent** has instructed the **contractor** to accelerate, shall be adjudicated strictly in terms of clause 32.

- 30.1 Replace reference to 36.3 at end of sentence with 36.0
- 31.12 Delete "Payment shall be subject to the **employer** giving the **contractor** a **tax** invoice for the amount due."
- 32.5.1 Add the following to the end of each of these clauses: "... due to no fault of the **contractor**."  
32.5.4  
32.5.7
- 32.12 Delete sub-clause
- 34.2 Add # next to 34.2
- 34.13 Replace "seven (7) **calendar days**" with "thirty-one (31) **calendar days**" and delete the words "subject to the **employer** giving the **contractor** a **tax** invoice for the amount due"
- 36.1 Add the following clauses 36.1.3 to 36.1.5 under 36.1 to read as follows:
- 36.1.3 The **contractor's** refusal or neglect to comply strictly with any of the conditions of contract.
- 36.1.4 The **contractor's** estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force with the Republic of South Africa.
- 36.1.5 The **contractor**, in the judgment of the **employer**, has engaged in **corrupt** or **fraudulent practices** in competing for or in executing the contract.
- 36.3 Replace "**principal agent**" with "**employer**".
- 37.3.5 Replace "ninety (90)" with "one hundred and twenty (120)".  
38.5.4
- 39.3.5 Add the following words at the end thereof: "within one hundred and twenty (120) **working days** of completion of such a report."
- 1.1 Delete in the Substitute Provisions (41.0 State Clauses) clause 41.1.3 the definitions for  
(41.1.3) **CONSTRUCTION PERIOD** and **INTEREST**. Sub-clause 1.1 definitions will apply (see contract data)
- 10.1 Delete in the Substitute Provisions (41.0 State Clauses) clauses 10.1, 10.2 and 10.4 so that the  
10.2 provisions of sub-clauses 10.1, 10.2 and 10.4 of the non-**state** clauses will apply to the **state**.  
10.4  
(41.0)
- 11.1 Delete in the Substitute Provisions (41.0 State Clauses) clause 11.1 so that the provisions of clause  
(41.0) 11.1 of the non-**state** clause will apply to the **state**.
- 12.1 Delete in the Substitute Provisions (41.0 State Clauses) clause 12.1 so that the provisions of clause  
(41.0) 12.1 of the non-**state** clause will apply to the **state** and replace "**contractor**" in clause 10.1 in the Substitute Provisions (41.0 State Clauses) with "The party responsible in terms of 12.1"
- 12.2 Amend the first part of the first sentence in clause 12.2 of the Substitute Provisions (41.0 State  
(41.0) Clauses) to read "Where the **contractor** is responsible for insurances, the **contractor** shall ....."
- 31.11.1 Delete in the Substitute Provisions (41.0 State Clauses) sub-clauses 31.11.1 and 31.11.2 so that the  
31.11.2 provisions of sub-clause 31.11.1 of the non-**state** clause will apply to the **state**.  
(41.0)
- 36.7 Add in the Substitute Provisions (41.0 State Clauses) as clauses 36.7, 37.5 and 39.5, the following:  
37.5 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the **employer**

- 39.5 or the **contractor**, or for any reason whatsoever, the **contractor** shall on written instruction, discontinue  
(41.0) with the **works** on a stated date and withdraw himself from the **site**. The contractor shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever.
- 40.2.1 Delete in the Substitute Provisions (41.0 State Clauses) clauses 40.2.1, 40.2.2, 40.3, 40.4, 40.5 and  
40.2.2 40.6 and replace with the following:  
40.3  
40.4  
40.5  
40.6  
(41.0)
- 40.1 Should any dispute between the **employer**, his **agents** or **principal agent** on the one hand and the contractors on the other arise out of this **agreement**, such dispute shall be referred to adjudication.
- 40.2 Adjudication shall be conducted in accordance with the edition of the JBCC Rules for Adjudication current at the time when the dispute is declared. The party, which raises the dispute, shall select three adjudicators from the panel of adjudicators published by the South African Institution of Civil Engineering or Association of Arbitrators (Southern Africa), determine their hourly fees and confirm that these adjudicators are available to adjudicate the dispute in question. The other party shall then select within 7 days one of the three nominated adjudicators, failing which the chairman for the time being of the Association of Arbitrators (Southern Africa) shall nominate an adjudicator. The **adjudicator** shall be appointed in terms of the Adjudicators Agreement set out in C1.4.
- 40.3 If provided in the **schedule**, a dispute shall be finally settled by a single Arbitrator to be agreed on between the parties or, failing such agreement within 28 days after referring the dispute to Arbitration, an Arbitrator nominated by the chairman for the time being of the Association of Arbitrators (Southern Africa). Any such reference shall be deemed to be a submission to the arbitration of a single arbitrator in terms of the Arbitration Act (Act No 42 of 1965, as amended), or any legislation passed in substitution therefore. In the absence of any other agreed procedure, the arbitration shall take place in accordance with the Rules for the Conduct of Arbitrations issued by the Association of Arbitrators (Southern Africa) which are current at the time of the referral to arbitration. The Arbitrator shall, in his award, set out the facts and the provisions of the contract on which his award is based.
- 40.4 If the **schedule** provides for court proceedings to finally resolve disputes, disputes shall be determined by court proceedings.

The additions to the JBCC Principal Agreement are:

Clause	Additions		
A1	<b>A1.0</b>	<b>Labour intensive component of the works</b>	
	<b>A1.1</b>	<b>Payment of labor-intensive component of the works.</b> Payment for works identified in the Scope of Work as being labor-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.	
	<b>A1.2</b>	<b>Applicable labour laws</b> The Ministerial Determination, Special Public Works Programme, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice N° 35310 04 May 2012, as reproduced below, shall apply to works described in the Scope of Work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.	
		<b>1</b>	<b>Introduction</b>
		1.1	This document contains the standard terms and conditions for workers employed in elementary occupations on a Special Public Works Programme (SPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of a SPWP.
		1.2	In this document – (a) “department” means any department of the State, implementing agent or contractor; (b) “employer” means any department, implementing agency or contractor that hires workers to work in elementary occupations on a SPWP; (c) “worker” means any person working in an elementary occupation on a SPWP; (d) “Elementary occupation” means any occupation involving unskilled or semi-skilled work; (e) “management” means any person employed by a department or implementing agency to administer or execute an SPWP; (f) “task” means a fixed quantity of work; (g) “task-based work” means work in which a worker is paid a fixed rate for performing a task; (h) “task-rated worker” means a worker paid on the basis of the number of tasks completed (i) “time-rated worker” means a worker paid on the basis of the length of time worked.
		<b>2</b>	<b>Terms of Work</b>
		2.1	Workers are employed on a temporary basis or contract basis.
		<b>3</b>	<b>Normal Hours of Work</b>
		3.1	An employer may not set tasks or hours of work that require a worker to work– (a) more than forty hours in any week; (b) on more than five days in any week; and (c) for more than eight hours on any day.
		3.2	An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.
		<b>4</b>	<b>Meal Breaks</b>
		4.1	A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.
		4.2	An employer and worker may agree on longer meal breaks.
		4.3	A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a

		worker is relieved of his or her duties during the meal break.
	4.4	A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.
	<b>5</b>	<b>Special Conditions for Security Guards</b>
	5.1	A security guard may work up to 55 hours per week and up to eleven hours per day.
	5.2	A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.
	<b>6</b>	<b>Daily Rest Period</b>
		Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.
	<b>7</b>	<b>Weekly Rest Period</b>
		Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").
	<b>8</b>	<b>Sick Leave</b>
	8.1	Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.
	8.2	A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.
	8.3	A worker may accumulate a maximum of twelve days' sick leave in a year.
	8.4	Accumulated sick-leave may not be transferred from one contract to another contract.
	8.5	An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
	8.6	An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.
	8.7	An employer must pay a worker sick pay on the worker's usual payday.
	8.8	Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
		(a) absent from work for more than two consecutive days; or (b) absent from work on more than two occasions in any eight-week period.
	8.9	A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorized to issue medical certificates indicating the duration and reason for incapacity.
	8.10	A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.
	<b>9</b>	<b>Maternity Leave</b>
	9.1	A worker may take up to four consecutive months' unpaid maternity leave.
	9.2	A worker is not entitled to any payment or employment-related benefits during maternity leave.
	9.3	A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
	9.4	A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.
	9.5	A worker may begin maternity leave –
		(a) four weeks before the expected date of birth; or

		<p>(b) on an earlier date –</p> <p>(i) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or</p> <p>(ii) if agreed to between employer and worker; or</p> <p>(c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.</p>
	9.6	A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.
	<b>10</b>	<b>Family responsibilities leave</b>
	10.1	Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -
		<p>(a) when the employee's child is born;</p> <p>(b) when the employee's child is sick;</p> <p>(c) in the event of a death of –</p> <p>(i) the employee's spouse or life partner;</p> <p>(ii) the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.</p>
	<b>11</b>	<b>Statement of Conditions</b>
	11.1	<p>An employer must give a worker a statement containing the following details at the start of employment –</p> <p>(a) the employer's name and address and the name of the SPWP;</p> <p>(b) the tasks or job that the worker is to perform; and</p> <p>(c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;</p> <p>(d) the worker's rate of pay and how this is to be calculated;</p> <p>(e) the training that the worker will receive during the SPWP.</p>
	11.2	An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
	11.3	An employer must supply each worker with a copy of these conditions of employment.
	<b>12</b>	<b>Keeping records</b>
	12.1	Every employer must keep a written record of at least the following –
		<p>(a) the worker's name and position;</p> <p>(b) in the case of a task-rated worker, the number of tasks completed by the worker;</p> <p>(c) in the case of a time-rated worker, the time worked by the worker;</p> <p>(d) payments made to each worker.</p>
	12.2	The employer must keep this record for a period of at least three years after the completion of the SPWP.
	<b>13</b>	<b>Payment</b>
	13.1	An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
	13.2	A worker may not be paid less than the minimum wage rate of R95 per day or per task. This will be adjusted annually on the 1 <sup>st</sup> of November in line with inflation (available CPI as provided by Stats SA six (6) weeks before implementation)
	13.3	A task-rated worker will only be paid for tasks that have been completed.
	13.4	An employer must pay a task-rated worker within five weeks of the work being completed



		and the work having been approved by the manager or the contractor having submitted an invoice to the employer.
	13.5	A time-rated worker will be paid at the end of each month.
	13.6	Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
	13.7	Payment in cash or by cheque must take place –
		(a) at the workplace or at a place agreed to by the worker; (b) during the worker's working hours or within fifteen minutes of the start or finish of work; (c) in a sealed envelope which becomes the property of the worker.
	13.8	An employer must give a worker the following information in writing –
		(a) the period for which payment is made; (b) the numbers of tasks completed, or hours worked; (c) the worker's earnings; (d) any money deducted from the payment; (e) the actual amount paid to the worker.
	13.9	If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.
	13.10	If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.
	<b>14</b>	<b>Deductions</b>
	14.1	An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.
	14.2	An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.
	14.3	An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.
	14.4	An employer may not require or allow a worker to –
		(a) repay any payment except an overpayment previously made by the employer by mistake; (b) state that the worker received a greater amount of money than the employer actually paid to the worker; or (c) pay the employer or any other person for having been employed.
	<b>15</b>	<b>Health and Safety</b>
	15.1	Employers must take all reasonable steps to ensure that the working environment is healthy and safe.
	15.2	A worker must –
		(a) work in a way that does not endanger his/her health and safety or that of any other person; (b) obey any health and safety instruction; (c) obey all health and safety rules of the SPWP; (d) use any personal protective equipment or clothing issued by the employer; (e) report any accident, near-miss incident or dangerous behavior by another person to their employer or manager.
	<b>16</b>	<b>Compensation for Injuries and Diseases</b>
	16.1	It is the responsibility of the employers (other than a contractor) to arrange for all persons

		employed to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
	16.2	A worker must report any work-related injury or occupational disease to their employer or manager.
	16.3	The employer must report the accident or disease to the Compensation Commissioner.
	16.4	An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.
	<b>17</b>	<b>Termination</b>
	17.1	The employer may terminate the employment of a worker for good cause after following a fair procedure.
	17.2	A worker will not receive severance pay on termination.
	17.3	A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
	17.4	A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
	17.5	A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
	<b>18</b>	<b>Certificate of Service</b>
	18.1	On termination of employment, a worker is entitled to a certificate stating-
		(a) the worker's full name; (b) the name and address of the employer; (c) (d) the work performed by the worker; (e) any training received by the worker as part of the SPWP; (f) the period for which the worker worked on the SPWP; (g) any other information agreed on by the employer and worker.
<b>A2</b>	<b>A2.0</b>	<b>Mandatory Sub-Contracting (Only for projects above R 30 Million)</b>
	<b>A2.1</b>	The Contractor must sub-contract 30% of the work to Domestic Sub-Contractors. The Sub-Contractors shall have a CIDB grading.  Attendance, management, and supervision to Domestic Sub-contractors as stated above should be priced under the relevant items in the Preliminaries section of the bills of quantities and no further claims will be entertained
		The Contractor shall, directly after appointment and without delay, enter into domestic sub-contracts with the Domestic Sub-Contractors and forward a copy of these agreements to the Principal Agent. The Contractor shall remain responsible for providing the subcontracted portion of the works as if the work had not been subcontracted.
		The Contractor will be responsible for all assistance and training required by the Sub-Contractor/s to complete the Project successfully, irrespective of the mandatory sub-contracting requirement of this contract, the Contractor will at all times be the responsible party in accordance with the conditions of contract. <b>Any amount required for management training of sub-contractors must be priced and included in the Main Contractors Preliminary and General.</b>
<b>A3</b>		
<b>A4</b>	<b>A4.0</b>	<b>Attendance to Domestic Sub-Contractors in terms of clauses A2 above</b>

	<b>A4.1</b>	The attendance of to the Domestic Sub-Contractor appointed in terms of clauses A2 above shall be priced under the relevant specific preliminaries item in the Preliminaries Section of the Bills of Quantities.
<b>A5</b>	<b>A5.0</b>	
	<b>A5.1</b>	
<b>A6</b>	<b>A6.0</b>	<b>Expanded Public Works Programme</b>
	<b>A6.1</b>	The Contractor will be required to employ staff which satisfies the EPWP requirements as per the Guidelines for the implementation of labor-intensive infrastructure projects.

## Part 1: Contract Data Completed by the Employer

### Clause      Item and data

- 1.2      **Employer:**  
Independent Development Trust  
**Postal address:**  
PO Box 5279  
BEACON BAY  
5241  
**Tel:** 043 711 6000 **Fax:** 043 748 5370  
**Physical address:**  
PALM SQUARE BUSINESS PARK, SILVERWOOD HOUSE, BONZA BAY RD, EAST LONDON
- 5.1      **Principal Agent:**  
Ngonyama Okpanum & Associates  
**Agent's service:**  
Principal Agent  
**Postal address:**  
PO Box 8194  
NAHOON  
EAST LONDON, 5210  
**Tel:** 043 735 2027 **Fax:** 043 735 1984
- 5.2      **Agent 1:**  
Ngonyama Okpanum & Associates  
**Agent's service:**  
Architects  
**Postal address:**  
PO Box 8194  
NAHOON  
EAST LONDON, 5210  
**Tel:** 043 735 2027 **Fax:** 043 735 1984
- 5.3      **Agent (2)**  
Mokate Monk & du Plessis  
**Agent's service:**  
Quantity Surveyors  
**Postal address:**  
PO Box 8370  
Nahoon  
East London 5210  
**Tel:** 043 721 0667
- 5.4      **Agent (3)**  
CSE Consulting Engineers  
**Agent's service:**  
Civil & Structural Engineers  
**Postal address:**  
PO Box 15825  
EAST LONDON, 5205  
**Tel:** 043 726 3565 **Fax:** 086 240 4464

5.5 **Agent (4)**  
RNA Consulting Engineers  
**Agent's service:**  
Electrical Engineers  
**Postal address:**  
7 King Street  
EAST LONDON, 5201  
**Tel:** 043 742 0041 **Fax:** 043 742 3883

- 1.1 **The Works comprises** completing the following to facilitate a Primary School which will accommodate Grades R to Grade 6, with the following facilities:  
 Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.  
 Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets).  
 External Works consists of the following: Demolitions and removal of existing works, Platform (partially constructed), Walkways, ramps, stairs, concrete infill areas, Gabion retainer walls, Entrance wall, Refuse room, Stormwater, Sewerage, Water supply, Sand pit and undercover play area, Parking Area, Perimeter fencing, Internal Fencing separating Grade R as well as the Elevated Water Tank, Jungle gym, Landscaping, Electrical Works
- 1.1 Riverview Primary School, Kasa Location, Kasa, Elliotdale, Amathola District Municipality (32.053985° S; 28.612954° E)
- 1.1 **The Works** or installations to be undertaken by **direct contractors** comprises  
 22.2  
 Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.  
 Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets).  
 External Works consists of the following: Demolitions and removal of existing works, Platform (partially constructed), Walkways, ramps, stairs, concrete infill areas, Gabion retainer walls, Entrance wall, Refuse room, Stormwater, Sewerage, Water supply, Sand pit and undercover play area, Parking Area, Perimeter fencing, Internal Fencing separating Grade R as well as the Elevated Water Tank, Jungle gym, Landscaping, Electrical Works
- 41.0 The Employer is an organ of **State**  
 31.11.2  
 11.2
- The interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999) will apply.
- 31.4.2  
 26.1.2
- Lateral support insurance is to be effected by the **contractor**
  - Payment will be made for materials and goods
  - Extended **defects** liability period will apply to the following elements:  
 NOT APPLICABLE
- 15.2.1 Possession of the **site** is to be given on the date in the schedule providing the **employer** with **construction guarantees** in accordance with the provisions of 14.0.
- 15.3 The period for the commencement of the **works** after the **contractor** takes possession of the site is ten (10) **working days**.  
 For the **works** as a whole:  
 The date for **practical completion** is 8 Calendar months including annual builders break after contractual commencement date  
 The **penalty per calendar day** is 4.0 cents per R100 of the contract value
- 1.2 The law applicable to the agreement shall be that of the Republic of South Africa.



## INDEPENDENT DEVELOPMENT TRUST

Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.

Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets).

### C1.3 Construction Guarantee

#### GUARANTOR DETAILS AND DEFINITIONS

Guarantor means .....

...

Physical address .....

...

.....

.....

Guarantor's signatory 1 ..... Capacity .....

...

Guarantor's signatory 1 ..... Capacity .....

...

Employer means **The Independent Development Trust**

Contractor means .....

...

Agent means **Ngonyama Okpanum & Associates**

Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.

Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets).

#### Site means

**The designated site to be shown to the contractor is Riverview Primary School, Kasa Location, Kasa, Elliotdale, Amathola District Municipality (32.053985° S; 28.612954° E)**



Agreement means **the JBCC Series 2000 Principal Agreement Edition 4.1 Code 2101 March 2005**

Contract Sum i.e. the total of prices in the Form of Offer and Acceptance inclusive of VAT

Amount in figures R .....

Amount in words .....  
(Rand)

Guaranteed Sum means the maximum aggregate amount of R .....  
...

Amount in words .....  
(Rand)

**1** The Guarantor's liability shall be limited to the amount of the Guaranteed Sum as follows:

GUARANTOR'S LIABILITY	PERIOD OF LIABILITY
Maximum Guaranteed Sum (not exceeding 10 % of the contract sum) in the amount of: ..... ..... (Rands) (R.....)	From and including the date of issue of this Construction Guarantee and up to and including the date of the only practical completion certificate or the last practical completion certificate where there are sections, upon which this Construction Guarantee shall expire.

**2** The Guarantor hereby acknowledges that:

**2.1** Any reference in this Guarantee to the Agreement is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a surety ship.

**2.2** Its obligation under this Guarantee is restricted to the payment of money.

**3** Subject to the Guarantor's maximum liability referred to in clauses 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in sub-clauses 3.1 to 3.3:



jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at ..... Date .....  
...

Guarantor's Signatory 1 ..... Guarantor's Signatory 2 .....  
...

Identity number ..... Identity number .....  
...

Witness 1 ..... Witness 2 .....  
...

Guarantor's seal or stamp

## INDEPENDENT DEVELOPMENT TRUST

Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.

Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets)

## ADJUDICATOR'S AGREEMENT

This agreement is made on the . . . . . day of ..... between:

..... (name of company / organisation)  
of .....

..... (address)

and

..... (name of company / organisation)  
of .....

..... (address)

(the Parties) and

..... (name)  
of .....

..... (address)

(the Adjudicator).

Disputes or differences may arise/have arisen\* between the Parties under a Contract dated . . . . .  
. . . and known as. ....

and these disputes or differences shall be/have been\* referred to adjudication in accordance with the JBCC 2000 Adjudication Rules, (hereinafter called "the Procedure") and the Adjudicator may be or has been requested to act.

\* Delete as necessary

**IT IS NOW AGREED** as follows:

- 1 The rights and obligations of the Adjudicator and the Parties shall be as set out in the JBCC 2000 Adjudication Rules.
- 2 The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the JBCC 2000 Adjudication Rules.
- 3 The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses as set out in the Contract Data.
- 4 The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
- 5 The Adjudicator shall inform the Parties if he intends to destroy the documents which have been

sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

SIGNED by:	SIGNED by:	SIGNED by:
Name:	Name:	Name:
ID:	ID:	ID:
who warrants that he / she is duly authorized to sign for and on behalf of the first Party in the presence of	who warrants that he / she is duly authorized to sign for and behalf of the second Party in the presence of	the Adjudicator in the presence of
Witness	Witness:	Witness:
Name:	Name	Name:
Address:	Address:	Address:
Date:	Date:	Date:

**Contract Data**

1	The Adjudicator shall be paid at the hourly rate of R.....in respect of all time spent upon, or in connection with, the adjudication including time spent traveling.
2	The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to: (a) Printing, reproduction and purchase of documents, drawings, maps, records and photographs. (b) Telegrams, telex, faxes, and telephone calls. (c) Postage and similar delivery charges. (d) Travelling, hotel expenses and other similar disbursements. (e) Room charges. (f) Charges for legal or technical advice obtained in accordance with the Procedure.
3	The Adjudicator shall be paid an appointment fee of R..... This fee shall become payable in equal amounts by each Party within 14 days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 1 and/or item 2 of the Contract Data. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
4	The Adjudicator is/is not* currently registered for VAT.
5	Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
6	All payments, other than the appointment fee (item 3) shall become due 31 days after receipt of invoice,

\* Delete as necessary

## INDEPENDENT DEVELOPMENT TRUST

Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.

Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets)

### C2.1 Pricing Instructions

- 1 The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work (as amended) published and issued by the Association of South African Quantity Surveyors (Seventh Edition), 1999. Where applicable the:
  - a) Civil engineering work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardized Specifications for Civil Engineering Works.
  - b) Mechanical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Refrigeration, Air-Conditioning and Ventilation Installations, published by the South African Association of Quantity Surveyors, July 1990).
  - c) electrical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
- 2 The agreement is based on the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 4.1, and March 2005. The additions, deletions and alterations to the JBCC Principal Building Agreement as well as the contract specific variables are as stated in the Contract Data. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- 3 Preliminary and general requirements are based on the various parts of the JBCC Series 2000 Preliminaries as prepared by the Joint Building Contracts Committee, Edition 4.1, and March 2005. The additions, deletions and alterations to the various parts of the JBCC Series 2000 Preliminaries as well as the contract specific variables are as stated in the Specification Data in the Scope of Work. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- 4 It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to [www.stanza.org.za](http://www.stanza.org.za) or [www.iso.org](http://www.iso.org) for information on standards).
- 5 The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of

Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.

- 6 The drawings listed in the Scope of Works used for the setting up of these Bills of Quantities are kept by the quantity surveyor and can be viewed at any time during office hours up until the completion of the works.
- 7 Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted.
- 8 The rates contained in the Bills of Quantities will apply irrespective of the final quantities of the different classes and kinds of work actually executed.
- 9 Rates for work of similar description occurring in different sections of the Bills of Quantities shall be identical.
- 10 An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
- 11 Where any item is not relevant to this specific contract, such item is marked N/A (signifying “not applicable”)
- 12 The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminary and General) of the Bills of Quantities
- 13 The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor’s risk.
- 14 The amount of the Preliminary and General Section to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount for the Preliminary and General Section and any amount in respect of contract price adjustment provided for in the contract.
- 15 Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in 14 but taking into account the revised period for completing the works.
- 16 The amount or items of the Preliminary and General Section shall be adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:
  - a) an amount which is not to be varied, namely Fixed (F)
  - b) an amount which is to be varied in proportion to the contract value, namely Value Related (V); and
  - c) an amount which is to be varied in proportion to the contract period as compared to the initial construction period excluding revisions to the construction period for which no adjustment to the contractor is not entitled to in terms of the contract, namely Time Related(T).
- 17 Where no provision is made in the Bills of Quantities to indicate which of the three categories in 12 apply or where no selection is made, the adjustments shall be based on the following

breakdown:

- a) 10 percent is Fixed;
- b) 15 percent if Value Related
- c) 75 percent is Time Related.

- 18 The adjustment of the Preliminary and General Section shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminary and General Section shall exclude any contingency sum, the amount for the Preliminary and General Section and any amount in respect of contract price adjustment provided for in the contract. Adjustments in respect of any staged or sectional completion shall be prorated to the value of each section.
- 19 All work is to be constructed using labor-intensive methods. The use of plant to provide such works, other than plant specifically provided for in the scope of works, is a variation order to the contract
- 20 Payment for items, which are designated to be constructed under labour-intensively, will not be made unless they are constructed using labor-intensive methods. Any unauthorized use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.
- 21 The tenderer is to acquaint himself as to the specific requirements of this tender as contained in additional clauses A1 to A6 to the JBCC Principal Agreement as incorporated in the Contract Data. These clauses may be priced under the relevant Preliminaries items in SECTION C: SPECIFIC PRELIMINARIES of the Preliminaries Bill. No claim will be entertained due to the failure of the tenderer to allow for these requirements



## **INDEPENDENT DEVELOPMENT TRUST**

### **COMPLETION OF RIVERVIEW PRIMARY SCHOOL.**

Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.

Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets)

### **C2.2 Bills of Quantities**

# GENERAL SPECIFICATION FOR MODULAR PREFABRICATED CONSTRUCTION SYSTEM

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# 1 SCOPE OF WORKS

The scope of works involves the following to facilitate a Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities:

- Administration / Nutrition Block combination,
- Grade R Classroom
- Two Classroom and Store x 2
- Computer / Library / Science Classroom
- Multi-Purpose Centre and Store

Conventional construction to be utilised for the following facilities:

- Female staff, Learners, Paraplegic Toilet Block
- Learners & Educator's Toilet Block
- Grade R Toilets Block
- External Works consists of the following:
  - Platform
  - Stormwater
  - Sewerage
  - Water supply (Tanks, River Extraction, etc.)
  - Parking Area
  - Internal Fencing at some areas
  - Perimeter Fencing

## 2 GENERAL SYSTEM REQUIREMENTS PERTAINING TO MODULAR PREFABRICATED CONSTRUCTION SYSTEM

The system to be utilised for the construction of the superstructure needs to conform to the following basic requirements.

### 2.1 MODULARITY

The system is to be modular in nature to the following inherent criteria of the construction system:

1. Construction in which similar units or subcomponents are combined repeatedly to create a total system;
2. A construction system in which large prefabricated units are combined to create a finished structure;
3. A structural design which uses dimensions consistent with those of the uncut materials supplied. Common modular measurements are 1m to 100mm, or 900mm to 300mm, etc.

All modules to be manufactured off site, stored on site strictly as per manufacturers requirements, and installed.

Modular system components are all required to meet or exceed building regulations and material performance of similar conventional construction methodology.

## **2.2 DISASSEMBLY AND RE-USE**

The system is to be specifically designed for decommissioning and re-use in another locale and must be designed and constructed as such.

The contractor will furnish the client with a decommissioning and re-use manual specific to the works erected on site.

### **2.2.1 INTEGRATED STRUCTURE**

The structural requirements of the superstructure will form an inherent part of the system and will provide adequate design and performance in terms of the national building regulations, SANS 10160.

The Manufacturer and Contractor are to provide calculation sheets and rational designs for all structural systems and site specific performance criteria.

### **2.2.2 INTEGRATED INSULATION**

Wall panels, ceiling systems and roofing components are all to be calculated to provide insulation for structures as per the climatic zones specified for the specific site SANS 204-3.

The Site for Riverview is located in Climatic Zone No 5 – Sub Tropical Coastal.

R- Values are to be provided for the following components:

1. Walls
2. Roofs
3. Ceilings.

R - Values to conform to or exceed requirements of SANS 10400 XA, for equivalent building components. R-Values are to be calculated for the whole of the building element, from its sub component values in total, including Air gaps.

Insulation to be effected as per the integrated system for panelling or Roofing.

Sub floor insulation will not be required.

### **2.2.3 INTEGRATED SERVICES**

All services are to be integrated and designed into the panelling system, and coordinated with the Architect as well as the Engineer, specific to the layout and functionality requirements.

No surface mounting of any services (Including Distribution boards) will be allowable.

Detailed shop drawings illustrating all services are to be provided to the consultants for approval.

## **2.2.4 FINISHING**

All steel to be adequately galvanised to Z600 specification for coastal marine environments; Electroplated Galvanising for cold rolled sections and hot dip galvanising as per HDGASA for hot rolled sections.

Paint specifications for all steel (structural or otherwise) to be as part of a complete duplex coating system as per HDGASA.

It is preferential to have integrated finishing such as powder coated steel panel coatings to wall panels. Failing this a complete paint specification which conforms to Manufacturers requirements for a 5-year maintenance cycle in a coastal marine environment must be provided. A Certificate of compliance which conforms to this requirement will be required.

## **3 ADDITIONAL REQUIREMENTS**

Provision of a design and supply contracting specialist.

### **3.1.1 MOTIVATIONAL REPORT**

The Contractor will provide a motivational report for the patented system to be used in the construction of the modular prefabricated construction system, containing the following points:

- a. Why this system is the most suited for the conditions on Site, with the provisions made for construction as circumscribed in the drawings and contract documentation provided.
- b. The timeframes available and how the system is able to meet or exceed the requirements as set by the contract;
- c. How the quality inherent in the manufacture, transport and erection of the system, will meet or exceed the requirements as set by the contract.

### **3.1.2 CERTIFICATION OF CONTRACTOR**

It is expected that the contractor furnish proof of accreditation from the manufacturer of the modular prefabricated system. The Client, Implementing Agent, and Professional Service Providers reserve the right to interrogate any Manufacturer of the patented Modular Prefabricated System as to the proven track record for delivery on time, in quality and in budget of previous projects.

## **4 MODULAR PREFABRICATED CONSTRUCTION SYTEM**

### **4.1 SUPERSTRUCTURE**

#### **4.1.1 BUILDING ENVELOPE**

Building envelope will be designed for minimal air ingress, thus the building will be sealed to satisfy the following norms as prescribed by SANS 204-3

1. Building sealing

## 1.1 Building envelope

Roofs, external walls, and floors that form the building envelope and any opening such as windows and doors in the external fabric shall be constructed to minimize air leakage. The building sealing can be done by methods such as caulking, or adding skirting, architraves or cornices.

## 1.2 Air infiltration and leakage

In climatic zones 1, 2, 4 and 6 the ceiling voids and attics shall be designed so as to minimize air infiltration. Accordingly, wall plate and roof junctions shall be sealed. All tile roofs in these climatic zones shall have a tile underlay or radiant barrier and the joints shall be sealed. The joints in sheeted roofs shall be sealed.

## 1.3 Permissible air leakage (AL)

### a. Glazing and roof lights

Maximum permissible AL for openable glazing shall be 2.0 L/s·m<sup>2</sup> with a pressure difference of 75 Pa, when tested in accordance with SANS 613.

Maximum permissible AL for non-openable glazing shall be 0.31 L/s·m<sup>2</sup> with a pressure difference of 75 Pa, when tested in accordance with SANS 613.

### b. External doors

A seal to restrict AL shall be fitted to each edge of an external door and other such opening that

- i) Serves a conditioned space, or
- ii) Serves a habitable room in climatic zones 1, 2, 4 and 6.

The seal may be a foam or rubber compressible strip or a fibrous seal.

c. Roofs, external walls, external floors and any opening such as glazing or door in the external fabric, shall be constructed to minimize air leakage when forming part of the external fabric of

- i.) a conditioned space

## 4.1.2 WALLS

## 4.1.3 MANUFACTURING

Patented Modular prefabricated structure to be strictly as per manufacturers specifications and detailing. (Referred to in section 4.1.1) To be designed and specified by manufacturer certified technician, under guidance of the appointed Professional Architect.

The external walls to be cladded in a weather proof, impact resistance material, consisting of:

- pre-painted fibre cement sheeting (shiplap profile);

- or a treated timber boarding;
- or a pre-painted metal sheeting; and/or
- An equivalent system subject to approval by the Principal Agent in conjunction with the relevant Government Stakeholders.

The external walling to contain suitable vapour barriers between the floor and the walling. At the wall plate level, the wall should be properly sealed.

The anchoring system specified to secure the wall panels into position must be of a non-corrosive material.

All internal walls to have a smooth finish and be constructed out of a weatherproof durable impact resistant material.

**NOTE: Gypsum boarding is not an acceptable material**

The construction method used, must allow for the structure to be relocated at any given time.

#### **4.1.3.1 Structural design**

Notwithstanding the fact that the walls are from a prefabricated system the structural aspects of strength, stiffness and stability will be adhered to in terms of the National Building Regulations, SANS 10400: 2011:

- Part B Structural
- Part C Dimensions
- Part H Foundations
- Part J Floors
- Part T Fire protection.

Walls are to comply with the requirements of SANS 10160-3.

Wind forces imposed on the completed insulation envelope will vary with the locality of the structure and the position of any dominant openings. Exposed panels and their fixing systems shall be designed to resist wind pressure in accordance with the latest edition of SANS 10160.

The support system and fixings shall not damage the panels when subjected to the effects of positive or negative wind pressure.

#### **4.1.4 THERMAL PERFORMANCE**

1. The panels will perform to the requirements set out for the calculation of thermal resistance for building components as set out in SANS 10400 XA Part 4;

2. The walling component shall have an R value of minimum 1.9 m<sup>2</sup>.K/W to be taken into consideration;
3. Wall component systems with a R-Value of 2.2 m<sup>2</sup>.K/W, or higher will immediately be accepted by the client or the Principal Agent;
4. The components thermal performance will be supplied as part of the tender. This is to be completed by a competent person as regulated by SANS 10400 XA (Certification to be included), failing which test certificates completed in terms of the following standards;
5. The total R-value shall be determined by means of a test conducted in accordance with ASTM C 1363, ASTM C 518 or ASTM C 177;
6. Surface film resistance shall be in accordance with SANS 6946.

Name Of Patented Wall Construction System	
Agreement Certificate	
Climatic Zone as per location and SANS 10400 XA	Climatic Zone No 5
Thermal Performance Claimed	m <sup>2</sup> .K/W
Certification in terms of SANS 10400XA certified Competent Person (Certification attached)	Name of Competent Person
Certification in terms of ASTM C 1363/ ASTM C 518/ ASTM C 177	Attached Y / N / NA

#### 4.1.5 ROOF

This type of roof constructions will be required;

- a) Roof structures for areas with a high snow fall and hurricane winds.

##### 4.1.5.1 TYPE B - ROOF IN AREAS WITH A HIGH SNOW FALL AND HURRICANE WINDS

1. Roofs to be constructed with
2. The roof pitches to be not less than 35°.
3. In areas with a high snowfall, a 450mm wide 0.8mm thick pre-painted flat sheet, colour to match the roof sheets, to be securely fixed into position above the corrugations, to the bottom end purlin, over the gutter. This will ensure that the snow falls over the gutter and does not rest on the gutter.



4. The Registered Engineer must be informed that the area of the school is exposed to snowfalls and or hurricane winds. The design and erection of the roof structure must be amended accordingly by the Registered Engineer and a certificate of compliance issued on completion.
5. The roofs ties to be provided in order to ensure that the roof structure is correctly tied to the supports or alternatively to the slab as per the requirements to the Engineer.
6. All sheeting to be positively fixed with double the recommended required fixings per centres on eaves and ridges, with architect approved sealed roof screws. This will be applicable to concealed fix sheeting systems as well, to be fixed through the ridge of the profiled sheet into the patented fixing clip and the supporting structural member underneath.

#### **4.1.5.2 Structural Design and manufacture of roof**

##### **All structural timber members will be**

1. Treated with Copper Chrome Arsenic;
2. Subject to a rational design by the appointed structural engineer (Calculation Sheets upon request)
3. Compliant with SANS 10400 Part L
4. Compliant with the requirements of SANS 1060-3
5. Sealed at all wall joins completely for air ingress, and vermin by an Architect approved detail

##### **Light Weight Steel Construction will be**

6. All structural members will be galvanised to Z600 standard for coastal marine environments
7. Subject to a rational design by the appointed structural engineer (Calculation Sheets upon request)
8. Compliant with SANS 10400 Part L
9. Compliant to the requirements of the South African Light Weight Steel Frame Building Association SASFA

#### **4.1.5.3 Thermal performance of roof**

1. The roof will be designed and constructed to conform to SANS 10400 XA requirements. The whole of the roof assembly will be used in the calculation of the thermal resistance of the roof; i.e. Roof covering, Frame, Radiation Barrier, Thermal insulation, Ceiling, Roof Void, and Ceiling insulation.

2. The roof will have a minimum R-value of 2.7 m<sup>2</sup>.K/W for consideration, and a value of 3.2 m<sup>2</sup>.K/W for immediate acceptance to correspond to the climatic zones as specified in SANS 204-3, for the specific site
3. The Roof components thermal performance will be supplied as part of the tender. This is to be completed by a competent person as regulated by SANS 10400 XA (Certification to be included),

<b>Roof</b>	
Type of Roof Construction	
Agreement Certificate (Compatible with construction type)	
Climatic Zone as per location and SANS 10400 XA	
Thermal Performance Claimed	m <sup>2</sup> .K/W
Certification in terms of SANS 10400XA certified Competent Person (Certification attached)	Name of Competent Person

## **4.2 FITTINGS**

### **4.2.1 EXTERNAL DOORS**

1. All external doors to have a minimum 60 minute fire rating as per Part T of the NBR, the verandas will be considered to be fire escape routes .
2. Door frames to be, either:
  - a. Anodised aluminium frames to suit wall thickness and construction type, to comply with AAAMSA requirements;
3. All external doors to be 44mm x 813 x 2032mm Meranti framed ledged and braced doors formed of 44 x 220mm top and bottom rail, 22 x 100mm bracing rail and stiles, 22 x 69mm tongued grooved and V jointed one side boarding, twice countersunk screwed at intersection with internal panels rebated and filled with 6mm Sapele veneered plywood or similar approved door.
4. All joints between rails and stiles to be of mortise and Tenon construction.
5. All doors fitted with
  - a. an approved durable door handle with a 3 level-lockset (master keyed);
  - b. Three (3x) brass butt hinges per leaf;

- c. Rubber doorstep fixed to floor/weather bar;
  - d. Cabin Hook;
  - e. Classroom Denomination Signage;
6. All external doors to sensitive areas to receive security gate as per Architects drawings.

#### **4.2.2 WINDOWS**

1. Window Areas to be no more than 15% of Internal floor area for the required building;
2. Compliant with the requirements of 6.1.1 above in relation to the detailing and constructability of the prefabricated system;
3. Windows to be of standard sizes and dimensions as provided by the supplier and compatible with the patented prefabricated construction system.
4. Windows to be:
  - a. Anodised/ Powder Coated Aluminium Top Hung windows compatible with construction system, to AAAMSA specifications.
  - b. Galvanised Steel Windows painted with one base coat and 2 coats enamel for a coastal marine environment in a 5 year maintenance cycle.
4. All glazing to be a minimum of 6.87mm safety glazing, bearing the certification mark of SAGGA. (Certificate of Compliance to be presented)

#### **4.2.3 DADO RAIL**

All internal walls to have a dado rail of a minimum dimension of 19 x 100mm, fitted  $\pm$  900mm above floor level (height to be adjusted to the chair height for primary or secondary schools). Dado rail to be manufactured from hardwood or an approved durable impact resistant material, twice angle rounded and finished with an acceptable finish. Dado rail to be secured to the walls with minimal holes into the wall surface.

### **4.3 FIXTURES**

#### **4.3.1 WRITING BOARDS**

Supply a set of two standard Vitreous enamel magnetic chalkboards with aluminium chalk rail including setting up and fixing to walls complete and securing bottom of each board with two fixing brackets in accordance with the manufacturer's instructions, size 4,800 x 1,140 mm high overall. Writing boards to be secured to the walls with minimal holes into the wall surface, chalk rail to be not more than 900mm above FFL.

#### **4.3.2 PINNING BOARDS**

Supply and fit 12mm thick x 1,2m high soft board, or similarly approved pinning board across the full width of the rear of each classroom. Pinning boards to have a 44 x 22mm rebated hardwood surround, finished with three coats polyurethane suede varnish. Pinning boards to be secured to the walls with minimal holes into the wall surface.

#### **4.3.3 FIRE EXTINGUISHER**

Supply and fit one 4,5kg CO<sup>2</sup> fire extinguisher per class room, fixed to a hardwood backing-board, 1 200mm above FFL, securely fixed to the wall.

All other buildings to receive 1x DCFE per 100m<sup>2</sup> of building.

#### **4.3.4 LONG-ARMS**

Should windows be of pivot type, supply and fit one 600mm long-arm per classroom. Fitted behind the door with two brackets.

#### **4.3.5 CUPBOARDS**

Supply and fit one pre-painted steel stationary cabinet size 900 x 450 x 1,800mm, painted in a light approved paint colour, to each classroom and office. Screw cupboard to the wall.

*NOTE: All joinery as per Architects details standard drawings and required Schedules.*

#### **4.3.6 SHELVING**

SA Pine slated or pre-painted steel shelving, with minimum dimensions of 2,000mm high x 450mm wide, with 5 rows of shelves, support structure spacing not to exceed 750mm, to be fitted all-round in the Storeroom. Shelves must be design to carry a full load of books. Shelves to be secured to the floor and stabilized to the walls, with minimal holes into the wall surface.

#### **4.3.7 INTERNAL DOORS**

Approved semi-solid flush doors, with Commercial veneer both sides and with hardwood edge strips, tongued and grooved on to edges 44mm Thick, single flush door, size 813 x 2,032mm high.

Including a three lever approved mortise lock (Union 2277-78) [Master Keyed]complete with approved chromium plated handles and 100 x 75mm Double washered solid brass butt hinges.

The keys should be tagged separately by a plastic key tag. The door to be painted with three coats polyurethane matt varnish.

#### **4.3.8 SEAMLESS VINYL FLOOR SHEETS [FLOOR FINISH]**

Polyflor MYSTIQUE PuR heavy-duty polyurethane reinforced fully flexible vinyl floor sheeting laid in patterns, size 2m wide x 2,0 mm thick, fixed with approved adhesive, joints welded with a fully flexible coloured Polyflor Welding Rod to provide a smooth, hygienic sealed finish, complete with skirting as indicated elsewhere, on Ardex K 15 self-leveling screed to ensure a level installation, on well prepared cement screed to match required level – all installed strictly to manufactures specifications (Polyflor 011-609 3500) – Sheet and welding rod.

#### **NOTE:**

1. Where applicable, all expansion joints in screed to be according to vinyl sheet expansion joint detail. Complete with EJC50 Polyspan joint cover (Polyflor 011-609 3500) – Strip and welding rod colours to Architects approval.
2. Where floor covering change from one floor finish to another, the finishes should be divided with a 25mm x 3mm brass dividing strip cast into screed at position as indicated on detail drawing (flush with floor finish).

### **5 DESIGN AND COORDINATION**

The successful tenderer will be required upon appointment to furnish the Principal Agent/Architect with full and formal construction drawings, pertaining to the construction and implementation of the building system in question; these will include the following, but not be limited by:

- a. Plan(s);
- b. Elevation(s);
- c. Section(s);
- d. Roof plan(s);
- e. Perimeter sections;
- f. Construction details;
- g. Jointing details;
- h. Sealing details;
- i. Structural details;
- j. Calculation sheets;
- k. Coordination register to be coordinated with Professional Service providers;
- l. Window Schedules;

- m. Door Schedules;
- n. Finishing Schedules;
- o. Sanitary Schedules;
- p. Ironmongery Schedules;
- q. Electrical and Mechanical Installation complete details as per Section 2 of the Bills of Quantities.

It is expected that the successful contractor is subject to the professional guidance and responsibility for the overall quality of the design, to the Professional Architect as appointed by the IDT in the execution of the project.

The professional Architect in his role as professional as stipulated in the Architectural professions Act 44 of 2000, remains responsible for the full coordination and implementation of the buildings and structures in accordance with the National Building regulations, SANS 10400 of 2011, including SANS 10400 XA and SANS 204-3 as the case may be.

All drawings are to comply to ISO 4172:1991 technical drawings for the assembly of prefabricated structures; and

The Department of Public Works Manual for Architects (DPW)

## **5.1 CERTIFICATION REQUIREMENTS**

It is expected that the Modular Prefabricated construction System Conform to all the requirements of:

Agremént SA (*Valid and Current Certificate of Registration to be supplied*)

NHBRC as:

## **5.2 MANUFACTURE OF PREFABRICATED ELEMENTS**

1. Any system as proposed in this document by the bidder, will be manufactured in its totality within the borders of South Africa.
2. No allowances for import and/or export of materials, components, sub-components in the value chain of the supply of the materials to site will be allowed.
3. Prices as quoted and supplied are to be fixed in South African Rand (Currency), and not be subject to fluctuations in international currencies.
4. No delay in the supply of building elements as contained within the proposed system will be tolerated due to the constraints of international supply chain management.
5. Normal escalation as provided by the JBCC and CPAP will be allowed.

## **Annex**

## **Reference from SANS 10400-3 to SANS 2001 standards**

### **SANS 10400-H Foundations**

4.3.2.1.2: Foundations shall be constructed in accordance with the requirements of SANS 2001-CM2.

### **SANS 10400-K Walls**

4.2.1.2: The construction of the walls shall be in accordance with the requirements of SANS 2001-CM1.

4.5.2.1 Rain penetration: single-leaf, solidly bed-jointed masonry walls that have a thickness of 140 mm or greater plastered in accordance with the requirements of SANS 2001-EM1

### **SANS 10400-J Floors**

4.2 A water-resistant floor shall be constructed of concrete in accordance with the requirements of: SANS 2001-CC1 or SANS 2001-CC2.

or a plain grade 15 concrete slab where the slab serves as the final wearing surface, of thickness not less than 75 mm, laid on a polyolefin underfloor membrane and constructed in accordance with the requirements of SANS 2001-CC1.

### **SANS 10400-L Roofing**

### **SANS 10400-N Glazing**

4.1.1 Glazing in external walls, internal walls, partitions, shower doors, cupboard doors and lifts within 800 mm of floor level shall be ... installed in a frame in accordance with either the requirements of SANS 2001-CG1 or a suitable method described in SANS 10137.

NOTE: FOR SCHOOLS ALL WINDOWS TO BE MINIMUM 6.78mm SAFETY GLASS TO ALL PANES

### **SANS 10400-P Drainage**

4.8.3 Masonry conservancy tanks shall be constructed in accordance with the details shown in figures 1 and 2 provided that they are constructed above the water table in accordance with the requirements of SANS 2001-CC1 or SANS 2001-CC2, SANS 2001CM1 and SANS 2001-EM1

4.8.3 Backfill shall comply with the requirements of SANS 2001-DP9.

4.8.5 Masonry septic tanks, which are located above any perched or permanent water table, shall be constructed in accordance with the requirements of SANS 2001-CC2, SANS 2001-CM1, SANS 2001-EM1

4.22.1 Drains shall be installed in accordance with the requirements of SANS 2001-DP9.

### **SANS 10400-Q Non-water-borne means of sanitary disposal**

4.4.12 e) The portion of the internal walls of the pits that is raised above the ground shall be plastered in accordance with the requirements of SANS 2001-EM1;

- f) All concrete work shall be in accordance with the requirements of SANS 2001-CC1 or SANS 2001-CC2;
- g) Masonry walling and related foundations shall be in accordance with the relevant requirements of SANS 2001-CM1 and SANS 2001-CM2.

**SANS 10400-T Fire protection**

Table 14: (Increasing fire resistance of structural walls): Plaster shall be in accordance with the requirements of SANS 2001-EM1 and shall be applied to both faces of the wall.

**NOTE: ALL WALLS BI-SECTING THE MAIN VOLUME OF THE BUILDING(S) MAIN SPACES (i.e. CLASSROOMS, SHALL BE TO UNDERSIDE OF ROOF SHEETING AS 120 MINUTE RATED FIREWALLS)**

**6 CERTIFICATION**

Upon Close out of the project all certificates listed below should be handed in as a minimum, without which no final completion will be certified by the principal agent.

Painting Certificate
SAGGA certificate
Sign Off certificate from manufacturer of patented prefabricated construction system
Fire Certificates of all DCFE's
Plumbing certificate from PIRB registered plumber
Electrical Certificate of Compliance
Structural Engineer sign of on roof structure
Health and Safety File Signed Off
Agreement Certificate
SANS 10400 XA Competent Person Certification OR Manufacturers testing certificates for compliance to Thermal Requirements as stated
Certification of contractor by Manufacturer as approved installer of product



Item No	Quantity	Amount
<p><b><u>SECTION No. 1: PRELIMINARIES</u></b></p>		
<p><b><u>BILL No. 1: PRELIMINARIES</u></b></p>		
<p><b><u>MEANING OF TERMS "TENDER/TENDERER"</u></b></p>		
<p>Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder".</p>		
<p><b><u>PRELIMINARIES</u></b></p>		
<p>The JBCC Preliminaries Code 2103, May 2005 edition for use with the JBCC Principal Building Agreement Edition 4.1 Code 2101, March 2005 is taken to be incorporated herein. The Tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked. "N/A" signifying "Not Applicable".</p>		
<p><b><u>PREAMBLES FOR TRADES</u></b></p>		
<p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors, shall be deemed to be incorporated in these Bills of Quantities and no claims arising from brevity of description of items fully described in the Model Preambles will be entertained.</p>		
<p>Supplementary Preambles are incorporated in these Bills of Quantities to satisfy the requirements of this project. Such Supplementary Preambles shall take precedence over the provisions of the said Model Preambles.</p>		
<p>The Contractor's prices for all items throughout these Bills of Quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any Supplementary Preambles.</p>		
<p>Additionally, the Department of Public Works Construction Work Specification (PW371 A-B) is to apply.</p>		
<p><b><u>PRICING OF PRELIMINARIES</u></b></p>		
<p>Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of Preliminaries, then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related and the respective amounts entered in the spaces provided under each item.</p>		
<p>Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities.</p>		
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<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>		

**SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT**

**DEFINITIONS**

1 **A1.0 DEFINITIONS AND INTERPRETATION**

Clause 1.0

Clause 1.1 Definition of "**Commencement Date**" is added:

"**COMMENCEMENT DATE**" means the date that the possession of the site is given to the Contractor.

Clause 1.1 Definition of "**Construction Guarantee**" is amended by replacing it with the following:

"**CONSTRUCTION GUARANTEE**" means a guarantee at call obtained by the **Contractor** from an institution approved by the **Employer** in terms of the **Employer's** construction guarantee form as selected in the **schedule**.

Clause 1.1 Definition of "**Construction Period**" is amended by replacing it with the following:

"**CONSTRUCTION PERIOD**" means the period commencing on the **date that possession of the site is given to the Contractor** and ending on the date of **Practical Completion**.

Clause 1.1 Definition of "**Corrupt Practice**" is added:

"**CORRUPT PRACTICE**" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

Clause 1.1 Definition of "**Fraudulent Practice**" is added:

"**FRAUDULENT PRACTICE**" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any Tenderer and includes collusive practice among Tenderer' (prior to or after the tender submission), designed to establish tender prices at artificial non-competitive levels and to deprive the Tenderer of the benefits of free and open competition.

Clause 1.1 Definition of "**Interest**" is amended by replacing it with the following:

"**INTEREST**" means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).

Clause 1.1 Definition of "**Principal Agent**" is amended by replacing it with the following:

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"**PRINCIPAL AGENT**" means the person or entity appointed by the **Employer** and named in the **schedule**. In the event of a **Principal Agent** not being appointed, then all the duties and obligations of a **Principal Agent** as detailed in the **agreement** shall be fulfilled by a representative of the **Employer** as named in the **schedule**.

Clause 1.1 Definition of "**Security**" is amended by replacing it with the following:

"**SECURITY**" means the form of security provided to the **Employer** by the **Contractor**, as stated in the **schedule**, from which the **Contractor** or **Employer** may recover expense or loss.

Clause 1.6 is amended by replacing the words "prepaid registered post, telefax or e-mail" with "prepaid registered post or telefax"

Clause 1.6.4 is amended by replacing it with the following:

No clause

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**OBJECTIVE AND PREPARATION**

2 **A2.0 OFFER, ACCEPTANCE AND PERFORMANCE**

Clause 2.0

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

3 **A3.0 DOCUMENTS**

Clause 3.0

Clause 3.2.1 is amended by replacing "14.1" with "14.0"

Clause 3.7 is amended by the addition of the following:

The **Contractor** shall supply and keep a copy of the **JBCC** Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the **site**, to which the **Employer**, **Principal Agent** and **Agents** shall have access at all times.

Clause 3.10 is amended by replacing the second reference to "**Principal Agent**" with the word "**Employer**".

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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4 **A4.0 DESIGN RESPONSIBILITY**  
 Clause 4.0  
 Clause 4.3 is amended by replacing it with the following:  
 No clause  
 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_ Item

5 **A5.0 EMPLOYER'S AGENTS**  
 Clause 5.0  
 Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8 in terms of which the **Employer** has retained it's authority and has not given a mandate to the **Principal Agent** and in terms of which the **Employer** shall sign all documents.  
 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_ Item

6 **A6.0 SITE REPRESENTATIVE**  
 Clause 6.0  
 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_ Item

7 **A7.0 COMPLIANCE WITH REGULATIONS**  
 Clause 7.0  
 Note: A separate clause has been included in Section C : Specific Preliminaries of the **Bills of Quantities** for the **Contractor** to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification.  
 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_ Item

8 **A8.0 WORKS RISK**  
 Clause 8.0  
 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_ Item

9 **A9.0 INDEMNITIES**  
 Clause 9.0  
 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_ Item

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10 **A10.0 WORKS INSURANCES**

Clause 10.0

Clause 10.0 is amended by the addition of the following clauses:

**10.5 Damage to the Works**

- (a) Without in any way limiting the **Contractor's** obligations in terms of the contract, the **Contractor** shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the **Employer** against any such damage. The **Contractor** shall take such precautions and security measures and other steps for the protection and security of the works as the **Contractor** may deem necessary.
- (b) The **Contractor** shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works.
- (c) The **Employer** shall carry the risk of damage to or destruction of the works and material paid for by the **Employer** that is the result of the excepted risks as set out in 10.6
- (d) Where the **Employer** bears the risk in terms of this contract, the **Contractor** shall, if requested to do so, reinstate any damage or destroyed portions of the works and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof.

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**10.6 Injury to Persons or loss of or damage to Properties**

- (a) The **Contractor** shall be liable for and hereby indemnifies the **Employer** against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the works unless due to any act or negligence of any person for whose actions the **Employer** is legally liable.
- (b) The **Contractor** shall be liable for and hereby indemnifies the **Employer** against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the site, whether belonging to or under the control of the **Employer** or any other body or person, arising out of or in the course of or by reason of the execution of the works unless due to any act or negligence of any person for whose actions the **Employer** is legally liable.
- (c) The **Contractor** shall, upon receiving a **contract instruction** from the **Principal Agent**, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the **Employer** shall be entitled to cause it to be made good and to recover the cost thereof from the **Contractor** or to deduct the same from amounts due to the **Contractor**.

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- (d) The **Contractor** shall be responsible for the protection and safety of such portions of the premises placed under his control by the **Employer until the respective dates of the Certificates of Sectional Completion for the defines areas/sections.**
- (e) Where the execution of the works involves the risk of removal of or interference with support to adjoining properties, including land or structures or any structures to be altered or added to, the **Contractor** shall obtain adequately insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the works has been completed.
- (f) The **Contractor** shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the works.

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**10.7 High risk insurance**

In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:

**10.7.1 Damage to the works**

The **Contractor** shall, from the commencement date of the works until the date of the **Certificate of Practical Completion** bear the full risk of and hereby indemnifies and holds harmless the **Employer** against any damage to and/or destruction of the works consequent upon a catastrophic ground movement as mentioned above. The **Contractor** shall take such precautions and security measures and other steps for the protection of the works as he may deem necessary.

When so instructed to do so by the **Principal Agent**, the **Contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works, at the **Contractor's** own costs.

**10.7.2 Injury to persons or loss of or damage to property**

The **Contractor** shall be liable for and hereby indemnifies and holds harmless the **Employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above.

The **Contractor** shall be liable for and hereby indemnifies the **Employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the site, whether belonging to or under the control of the **Employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract.

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**10.7.3** It is the responsibility of the **Contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the **Contractor's** obligations in terms of the contract, the **Contractor** shall, within twenty one (21) calendar days of the commencement date but before commencement of the works, submit to the **Employer** proof of such insurance policy, if requested to do so.

**10.7.4** The **Employer** shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the **Contractor's** default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the **Contractor** or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the **Employer** and the **Contractor** and for this purpose all these contracts shall be considered one indivisible whole.

Fixed: R 200,000.00 Value related: \_\_\_\_\_ Time related: R 50,000.00

Item

11 **A11.0 LIABILITY INSURANCES**

Clause 11.0

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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12 **A12.0 EFFECTING INSURANCES**

Clause 12.0

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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13 **A13.0 No clause**

14 **A14.0 SECURITY**

Clause 14.0

Clauses 14.1 - 14.8 are amended by replacing them with the following:

14.1 In respect of contracts with a **contract sum** up to R1 million, the **security** to be provided by the **Contractor** to the **Employer** will be a payment reduction of five percent (5%) of the value certified in the **payment certificate** (excluding VAT).

14.1.1 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A).

14.1.2 The **Employer** shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the **Employer** complies with the provisions of 33.4 in which event the **Employer's** entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the **Contractor**.

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14.2 In respect of contracts with a **contract sum** above R1 million, the **Contractor** shall have the right to select the **security** to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the **schedule**. Such **security** shall be provided to the **Employer** within twenty one (21) **calendar days** from **commencement date**. Should the **Contractor** fail to select the **security** to be provided or should the **Contractor** fail to provide the **Employer** with the selected **security** within twenty one (21) **calendar days** from **commencement date**, the **security** in terms of 14.7 shall be deemed to have been selected.

14.3 Where **security** as a cash deposit of ten percent (10%) of the **contract sum** (excluding VAT) has been selected:

14.3.1 The **Contractor** shall furnish the **Employer** with a cash deposit equal in value to ten percent (10%) of the **contract sum** (excluding VAT) within twenty one (21) **calendar days** from **commencement date**.

14.3.2 Within twenty one (21) **calendar days** of the **respective dates of the Certificates of Sectional Completion for the defines areas/sections** of the works, the **Employer** shall reduce the cash deposit (calculated on the value of the area/section that achieved Sectional Completion) to an amount equal to three percent (3%) of the agreed value of that area/section (excluding VAT), and refund the balance to the **Contractor**.

14.3.3 Within twenty one (21) **calendar days** of the date of **Final Completion of the Whole Works (project inclusive of all areas/sections that have reached Sectional Completion)**, the **Employer** shall reduce the cash deposit to an amount equal to one percent (1%) of the **contract value** (excluding VAT) and refund the balance to the **Contractor**.

14.3.4 On the date of payment of the amount in the final **payment certificate**, the **Employer** shall refund the remainder of the cash deposit to the **Contractor**.

14.3.5 The **Employer** shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the **Employer** complies with the provisions of 33.4 in which event the **Employer's** entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the **Contractor**.

14.3.6 The parties expressly agree that neither the **Employer** nor the **Contractor** shall be entitled to cede the rights to the deposit to any third party.

14.4 Not Applicable

14.4.1 The **Contractor** shall furnish the **Employer** with an acceptable **Variable Construction Guarantee** equal in value to ten percent (10%) of the contract sum(excluding VAT) within twenty-one (21) calendar days from commencement date

14.4.2 The **Variable Construction Guarantee** shall reduce and expire in terms of the Variable Construction Guarantee, as agreed between the **Employer** and **Contractor**

14.4.3 The **Employer** shall return the Variable Construction Guarantee to the **Contractor** within fourteen (14) calendar days of it expiring

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14.4.4 Where the **Employer** has a right of recovery against the **Contractor** in terms of 33.0, the **Employer** shall issue a written demand in terms of the **Variable Construction Guarantee**

14.5 Where **security** as a **Fixed Construction Guarantee** of five percent (5%) of the **contract sum** (excluding VAT) and a five percent (5%) payment reduction of the value certified in the **payment certificates** (excluding VAT) has been selected:

14.5.1 The **Contractor** shall furnish a **Fixed Construction Guarantee** to the **Employer** equal in value to five percent (5%) of the **contract sum** (excluding VAT)

14.5.2 The **Fixed Construction Guarantee** shall come into force on the date of issue and shall expire on the date of **Practical Completion of the entire project**

14.5.3 The **Employer** shall return the **Fixed Construction Guarantee** to the **Contractor** within fourteen (14) **calendar days** of it expiring

14.5.4 The payment reduction of the value certified in a **payment certificate** shall be in terms of 31.8 (A) and 34.8

14.5.5 Where the **Employer** has a right of recovery against the **Contractor** in terms of 33.0, the **Employer** shall be entitled to issue a written demand in terms of the **Fixed Construction Guarantee** or may recover from the payment reduction or may do both

14.6 Where **security** as a cash deposit of five percent (5%) of the **contract sum** (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.6.1 The **Contractor** shall furnish the **Employer** with a cash deposit equal in value to five percent (5%) of the **contract sum** (excluding VAT) within twenty one (21) **calendar days** from **commencement date**

14.6.2 Within twenty one (21) **calendar days** of the date of **Practical Completion** of the **entire works**, the **Employer** shall refund the cash deposit in total to the **Contractor**.

14.6.3 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A).

14.6.4 Where the **Employer** has a right of recovery against the **Contractor** in terms of 33.0, the **Employer** may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both

14.7 Where **security** as a payment reduction of ten percent (10%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.7.1 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(B).

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14.7.2 The **Employer** shall be entitled to recover expense and loss from the payment reduction in terms of 33.0, provided that the **Employer** complies with the provisions of 33.4 in which event the **Employer's** entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the **Contractor**

14.8 Payments made by the guarantor to the **Employer** in terms of the **Fixed or Variable Construction Guarantee[s]** shall not prejudice the rights of the **Employer** or **Contractor** in terms of this agreement

14.9 Should the **Contractor** fail to furnish the **security** in terms of 14.2, the **Employer**, in his sole discretion and without notification to the **Contractor**, is entitled to change the **Contractor's** selected form of **security** to that of a ten per cent (10%) payment reduction of the value certified in the **payment certificate** (excluding VAT), where after 14.7 shall be applicable

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

**EXECUTION**

15 **A15.0 PREPARATION FOR AND EXECUTION OF THE WORKS**

Clause 15.0

Clause 15.1.1 is amended by replacing it with:

No Clause

Clause 15.1.2 is amended by replacing it with:

The **security** selected in terms of 14.0

Clause 15.1 is amended by the addition of the following clause:

15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within fourteen (14) **calendar days** of **commencement date**.

Clause 15.2.1 is amended by replacing it with the following clause:

Give the **Contractor** possession of the **site** within ten (10) **working days** of the **Contractor** complying with the terms of 15.1.4

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

16 **A16.0 ACCESS TO THE WORKS**

Clause 16.0

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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17	<b>A17.0 CONTRACT INSTRUCTIONS</b>	
	Clause 17.0	
	Clause 17.1.11 is amended by deleting the words "and the appointment of <b>nominated</b> and <b>selected sub-contractors</b> ".	
	Fixed:_____ Value related:_____ Time related:_____	Item
18	<b>A18.0 SETTING OUT OF THE WORKS</b>	
	Clause 18.0	
	Fixed:_____ Value related:_____ Time related:_____	Item
19	<b>A19.0 ASSIGNMENT</b>	
	Clause 19.0	
	Fixed:_____ Value related:_____ Time related:_____	Item
20	<b>A20.0 NOMINATED SUB-CONTRACTORS</b>	
	Clause 20.0	
	Clause 20.1.3 is amended by replacing it with the following:	
	No Clause	
	Note: See item B9.1 hereinafter for adjustment of attendance on <b>nominated sub-contractors</b> executing work allowed for under provisional sums.	
	Fixed:_____ Value related:_____ Time related:_____	Item
21	<b>A21.0 SELECTED SUB-CONTRACTORS</b>	
	Clause 21.0	
	Clause 21 is amended by replacing it with:	
	No Clause	
	Fixed:_____ Value related:_____ Time related:_____	Item
22	<b>A22.0 EMPLOYER'S DIRECT CONTRACTORS</b>	
	Clause 22.0	
	Fixed:_____ Value related:_____ Time related:_____	Item
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23 **A23.0 CONTRACTOR'S DOMESTIC SUB-CONTRACTORS**

Clause 23.0

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**COMPLETION**

24 **A24.0 PRACTICAL COMPLETION**

Clause 24.0

Refer to C1.2 Contract Data

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

25 **A25.0 WORKS COMPLETION**

Clause 25.0

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

26 **A26.0 FINAL COMPLETION**

Clause 26.0

Clause 26.1.2 is amended by inserting "#" next to 26.1.2

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

27 **A27.0 LATENT DEFECTS LIABILITY PERIOD**

Clause 27.0

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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28 **A28.0 SECTIONAL COMPLETION**

Clause 28.0

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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29 **A29.0 REVISION OF DATE FOR PRACTICAL COMPLETION**

Clause 29.0

Clause 29.2.5 is amended by replacing it with:

No clause

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

30 **A30.0 PENALTY FOR NON-COMPLETION**

Clause 30.0

Refer to C1.2 Contract Data

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**PAYMENT**

31 **A31.0 INTERIM PAYMENT TO THE CONTRACTOR**

Clause 31.0

Clause 31.5.2 is amended by replacing "14.7.1" with "14.0"

Clause 31.8 as amended by replacing it with the following two alternative clauses:

**Alternative A**

31.8(A) Where a **security** is selected in terms of 14.1; 14.5 or 14.6, the value of the **works** in terms of 31.4.1 and **materials and goods** in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

31.8 (A).1 Ninety-five per cent (95%) of such value in interim **payment certificates** issued up to the date of **Practical Completion**.

31.8(A).2 Ninety-seven per cent (97%) of such value in interim **payment certificates** issued on the date of **Practical Completion** and up to but excluding the date of **Final Completion**.

31.8(A).3 Ninety-nine per cent (99%) of such value in interim **payment certificates** issued on the date of **Final Completion** and up to but excluding the final **payment certificate** in terms of 34.6.

31.8(A).4 One hundred per cent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **Employer**. In such an event the payment reduction shall remain at the adjustment level applicable to the final **payment certificate**.

**Alternative B**

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31.8(B) Where **security** is a payment reduction in terms of 14.7 has been selected, the value of the **works** in terms of 31.4.1 and **materials and goods** in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

31.8(B).1 Ninety per cent (90%) of such value in interim **payment certificates** issued up to the date of **Practical Completion**.

31.8(B).2 Ninety-seven per cent (97%) of such value in interim **payment certificates** issued on the date of **Practical Completion** and up to but excluding the date of **Final Completion**.

31.8(B).3 Ninety-nine per cent (99%) of such value in interim **payment certificates** issued on the date of **Final Completion** and up to but excluding the final **payment certificate** in terms of 34.6

31.8(B).4 One hundred per cent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **Employer**. In such an event the payment reduction shall remain at the adjustment level applicable to the final **payment certificate**.

Clause 31.9 is amended by changing **twenty-one (21)** calendar days with **thirty (30)** calendar days

Clause 31.12 is amended by deleting the following:

Payment shall be subject to the **Contractor** giving the **Employer** a tax invoice for the amount due.

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

32 **A32.0 ADJUSTMENT TO THE CONTRACT VALUE**

Clause 32.0

Clause 32.1.3 Add the following to the end of the clause: "Clause 5.1 of the JBCC CPAP shall be deemed to be amended as follows:

Xe = the value of the index applicable to such work group and the valuation period for the month in which the payment certificate is dated

Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:

"due to no fault of the **Contractor**"

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

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33 **A33.0 RECOVERY OF EXPENSE AND LOSS**

Clause 33.0

Clause 33.2 Add the following clauses 33.2.9 to 33.2.13:

Clause 33.2.9 The **Contractor's** failure or neglect to commence with the works on the dates prescribed in the contract

Clause 33.2.10 The **Contractor's** failure or neglect to proceed with the works in terms of the contract

Clause 33.2.11 The **Contractor's** failure or neglect for any reason to complete the works in accordance with the contract

Clause 33.2.12 The **Contractor's** refusal or neglect to comply strictly with any of the conditions of contract or any contract instructions and/or orders in writing in terms of the contract

Clause 33.2.13 The **Contractor's** estate being sequestrated; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

34 **A34.0 FINAL ACCOUNT AND FINAL PAYMENT**

Clause 34.0

Clause 34.1 is amended by removing "#" next to 34.1

Clause 34.2 is amended by inserting "#" next to 34.2

Clause 34.8 is amended by deleting the words "where **security** as a fixed **construction guarantee** in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1"

Clause 34.13 is amended by replacing "seven (7) **calendar days**" with "thirty (30) **calendar days**" and deleting the words "subject to the **Employer** giving the **Contractor** a tax invoice for the amount due".

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

35 **A35.0 PAYMENT TO OTHER PARTIES**

Clause 35.0

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**CANCELLATION**

36 **A36.0 CANCELLATION BY EMPLOYER - CONTRACTOR'S DEFAULT**

Clause 36.0

Clause 36.1 is amended by the addition of the following clauses:

36.1.3 refuses or neglects to comply strictly with any of the conditions of contract.

36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.

36.1.5 in the judgement of the **Employer**, has engaged in **corrupt** or **fraudulent practices** in competing for or in executing the contract.

Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "**Principal Agent**" with "**Employer**".

Clause 36.0 is amended by the addition of the following clause:

36.7 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **Employer** or the **Contractor**; or for any reason whatsoever, the **Contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **Contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever.

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

37 **A37.0 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE**

Clause 37.0

Clause 37.3.5 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)".

Clause 37.0 is amended by the addition of the following clause:

37.5 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **Employer** or the **Contractor**; or for any reason whatsoever, the **Contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **Contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever.

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

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38 **A38.0 CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT**

Clause 38.0

Clause 38.5.4 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"

Clause 38.0 is amended by the addition of the following clause:

38.7 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **Employer** or the **Contractor**; or for any reason whatsoever, the **Contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **Contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

39 **A39.0 CANCELLATION - CESSATION OF THE WORKS**

Clause 39.0

Clause 39.3.5 is amended by the addition of the following at the end of the sentence: "within one hundred and twenty (120) **working days** of completion of such a report"

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**DISPUTE**

40 **A40.0 DISPUTE SETTLEMENT**

Clause 40.0

Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years".

Clause 40.6 is amended by removing the reference to:

No clause

Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:

Whether or not mediation resolves the dispute, the parties shall bear their own cost concerning the mediation and equally share the costs of the **Mediator** and related costs.

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**SUBSTITUTE PROVISIONS**

41 **A41.0 STATE CLAUSES**

Clause 41.0

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**CONTRACT VARIABLES**

**THE SCHEDULE (CONTRACT DATA)**

42 **A42.0 PRE-TENDER INFORMATION**

**Clause 42.0**

Tenderers are referred to **C1.2: Contract Data** for variables pertaining to this contract

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

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**SECTION B: JBCC PRELIMINARIES**

**B1.0 DEFINITIONS AND INTERPRETATION**

43 **B1.1** *Definitions and interpretation*

See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section.

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B2.0 DOCUMENTS**

44 **B2.1** *Checking of documents*

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

45 **B2.2** *Provisional Bills of Quantities*

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

46 **B2.3** *Availability of construction documentation*

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

47 **B2.4** *Interests of agents*

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

48 **B2.5** *Priced documents*

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

49 **B2.6** *Tender submission*

Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance".

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B3.0 THE SITE**

50 **B3.1** *Defined works area*

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

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83	<b>B9.2 Special attendance</b> Fixed:_____ Value related:_____ Time related:_____	Item	
84	<b>B9.3 Commissioning - fuel, water and electricity</b> Fixed:_____ Value related:_____ Time related:_____	Item	
	<b><u>B10.0 FINANCIAL ASPECTS</u></b>		
85	<b>B10.1 Statutory taxes, duties and levies</b> Fixed:_____ Value related:_____ Time related:_____	Item	
86	<b>B10.2 Payment for preliminaries</b> Fixed:_____ Value related:_____ Time related:_____	Item	
87	<b>B10.3 Adjustment of preliminaries</b>  Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) <b>working days</b> of taking possession of the <b>site</b> " with "in his priced <b>Bills of Quantities document</b> submitted with his tender offer".  Fixed:_____ Value related:_____ Time related:_____	Item	
88	<b>B10.4 Payment certificate cash flow</b> Fixed:_____ Value related:_____ Time related:_____	Item	
	<b><u>B11.0 GENERAL</u></b>		
89	<b>B11.1 Protection of the works</b> Fixed:_____ Value related:_____ Time related:_____	Item	
90	<b>B11.2 Protection/isolation of existing/sectionally occupied works</b> Fixed:_____ Value related:_____ Time related:_____	Item	
91	<b>B11.3 Security of the works</b> Fixed:_____ Value related:_____ Time related:_____	Item	
92	<b>B11.4 Notice before covering work</b> Fixed:_____ Value related:_____ Time related:_____	Item	
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- 12.1.3 **Interest of agents**  
[2.4] Details: N/A
- 12.1.4 **Defined works area**  
[3.1] Details:  
*The work area will be pointed out by the **Principal Agent** to the **Contractor** who will sign written acknowledgement therefore before commencing operations*
- 12.1.5 **Geotechnical investigation**  
[3.2] Details:  
The **Geotechnical Report** is appended to these tender documents
- 12.1.6 **Existing premises occupied**  
[3.4] Specific requirements:  
*The premises will be in use and occupied during the course of this **contract**. The respective areas/sections will be isolated by hoarding from the rest of the school areas*
- 12.1.7 **Previous work - dimensional accuracy**  
[3.5] Details: N/A
- 12.1.8 **Previous work - defects**  
[3.6] Details: N/A
- 12.1.9. **Services - known**  
[3.7] Details:  
*Should the **Contractor** encounter any existing services such as underground cables, pipes or sewer during the execution of the **works**, he shall notify the **Principal Agent** immediately and suspend all affected work in the immediate vicinity until instruction to proceed has been given by the **Principal Agent***
- 12.1.10 **Protection of trees**  
[3.9] Specific requirements: No
- 12.1.11 **Inspection of adjoining properties**  
[3.11] Specific requirements: N/A
- 12.1.12 **Enclosure of the works**  
[6.2] Specific requirements:  
*The **Contractor** shall enclose the areas of work in accordance with the current regulations applicable*
- 12.1.13 **Offices**  
[6.4.3] Specific requirements:  
*The **Contractor** shall provide, maintain and remove on completion of the **entire works** an office for use during site meetings or other contractual meetings by the teams involved in this project. This office should be suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times.*

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- 12.1.14 **Main notice board**  
[6.5] Specific requirements:  
*The **Contractor** shall provide, erect where directed, maintain and remove on completion of the works a standard notice board size 3,3 x 2,89m high. The board shall be securely fixed to and including a suitable supporting structure of timber posts and braces, all sturdy enough to withstand strong winds*
- 12.1.15 **Sub-contractors' notice board**  
[6.6] A notice board is required: N/A
- 12.1.16 **Water**  
[7.2] Option A (by **Contractor**) YES  
Option B (by **Employer** - free of charge) NO  
Option C (by **Employer** - metered) NO
- 12.1.17 **Electricity**  
[7.3] Option A (by **Contractor**) YES  
Option B (by **Employer** - free of charge) NO  
Option C (by **Employer** - metered) NO
- 12.1.18 **Telecommunications**  
[7.4] Telephone YES  
Facsimile YES  
E-mail YES
- 12.1.19 **Ablution facilities**  
[7.5] Option A (by **Contractor**) YES  
Option B (by **Employer**) NO
- 12.1.20 **Protection of existing/sectionally occupied works**  
[11.2] Protection is required YES
- 12.1.21 **Special attendance**  
[9.2] **Sub-contractor** (1) details:  
  
**Sub-contractor** (2) details:  
  
**Sub-contractor** (3) details:  
  
**Sub-contractor** (4) details:
- 12.1.22 **Protection of works**  
[11.1] Specific requirements: N/A
- 12.1.23 **Disturbance**  
[11.5] Specific requirements:  
*The **Contractor** shall keep the site, structures, etc. well watered during operations to prevent dust and shall provide and erect and remove on completion of the **works**, all necessary temporary dust screens all to the satisfaction of the **Principal Agent**.*

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12.1.24	<b>Environmental disturbance</b>	
[11.6]	Specific requirements:	N/A
<b>12.2</b>	<b>POST-TENDER INFORMATION</b>	
12.2.1	<b>Payment of Preliminaries</b>	
[10.2]	Option A (pro-rated)	YES/NO
	Option B (calculated)	YES/NO
12.2.2	<b>Adjustment of Preliminaries</b>	
[10.3]	Option A (three categories)	YES/NO
	Option B (detailed breakdown)	YES/NO
12.2.3	<b>Additional agreed Preliminaries items</b>	
	Details:	N/A

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**SECTION C: SPECIFIC PRELIMINARIES**

**Section C** contains Specific Preliminaries items which apply to this contract, except where N/A (Not Applicable) appears against an item.

102 **C1 CONTRACT DRAWINGS**

The drawings attached to the tender documents (refer **C5.1: Drawings**) do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the Tenderer to acquaint himself with the nature and extent of the **works** and the manner in which they are to be executed.

Should any part of the drawings not be clearly understood by the Tenderer he shall, before submitting his tender, obtain clarification in writing from the **Principal Agent**.

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

103 **C2 GENERAL PREAMBLES**

The document "**Specification of Materials and Methods to be used (PW371)**" is obtainable on request from the head office and all regional offices of the Department of Public Works, and shall be read in conjunction with the **Bills of Quantities** and be referred to for the full descriptions of work to be done and materials to be used.

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

104 **C3 TRADE NAMES**

Wherever a trade name for any product has been described in the **Bills of Quantities**, the Tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the **Principal Agent** being obtained **prior to the closing date for submission of tenders**.

If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for.

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

105 **C4 IMPORTED MATERIALS AND EQUIPMENT**

Where imported items are listed in the tender documents, the Tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations.

Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the **Contract Price Adjustment Provisions**.

Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

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106	<p><b>C5 VIEWING THE SITE IN SECURITY AREAS</b></p> <p>The <b>site</b> is situated in a security area and the Tenderer must arrange with the school or other responsible person to obtain permission to enter the <b>site</b> for tendering purposes.</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	N/A
	<p><b>C6 HIV/AIDS AWARENESS</b></p> <p>It is required of the <b>Contractor</b> to thoroughly study the HIV/AIDS Specification (PW1544) of the department that must be read together with and is deemed to be incorporated under this Section of the <b>Bills of Quantities</b>. Provision for pricing of HIV/AIDS awareness is made under items <b>C6.1</b> to <b>C6.5</b> hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained.</p> <p>The <b>Contractor</b> must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the <b>Principal Agent</b>, notwithstanding the provisions of Clause A31.0 or any other clause to the contrary, reserves the right to delay issuing any progress <b>payment certificate</b> until the <b>Contractor</b> provides satisfactory proof of compliance. The <b>Contractor</b> shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.</p> <p>Once the <b>Contractor</b> have established site, they must advise the staff at the hospital that they will be recruiting local labour and that they would want them to conduct the HIV training and awareness.</p>	
107	<p><b>C6.1 AWARENESS CHAMPION</b></p> <p>Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item
108	<p><b>C6.2 AWARENESS WORKSHOPS</b></p> <p>Selection and appointment of a competent Service Provider approved by the <b>Principal Agent</b>, provision of a <b>Service Provider Workshop Plan</b> and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item
109	<p><b>C6.3 POSTERS, BOOKLETS, VIDEOS, ETC.</b></p> <p>Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the <b>construction period</b>, all in accordance with the HIV/AIDS Specification</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item
	<p style="text-align: right;"><b>Carried to Collection</b></p>	R
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110 **C6.4 ACCESS TO CONDOMS**

Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the **construction period**, all in accordance with the HIV/AIDS Specification

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

111 **C6.5 MONITORING**

Monitoring HIV/AIDS awareness of workers, providing the **Principal Agent** with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the **construction period** and close out, all in accordance with the HIV/AIDS Specification

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

112 **C7 OCCUPATIONAL HEALTH AND SAFETY ACT**

The **Contractor** shall comply with the requirements set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 19093 (Act No. 85 of 1993), including COVID-19 Requirements as per Government Notice No. 479 dated 29 April 2020.

It is required of the **Contractor** to thoroughly study **C3.1:Project Health and Safety Specification** that must be read together with this clause.

The **Contractor** must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non compliance, the **Principal Agent**, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the **Contractor** provides satisfactory proof of compliance. The **Contractor** shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.

Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification **is to be made under this clause** and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained. It must be further noted that the Bills of Quantities forming part of the Health and Safety Specification starting on page 32 of the specification and the cost of this must be incorporated within this clause and no additional claims in this regard will be entertained.

**Prices to allow for -**

1. Principal Contractor
2. Principal Contractor's own Sub-contractors
3. Principal Contractor's EME/QSE Sub-contractors

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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113 **C8 REPORTING BY CONTRACTOR**

The Contractor is required to complete the **CONTRACTOR MONTHLY REPORT** (incorporating the EME/QSE details in each report), which is to be submitted together with the Contractor's payment claim. Payment of the Contractor is conditional on this information being accurate and timeously provided. Payment shall be subject to the Employer giving the Contractor a tax invoice for the amount due. The Contractor is to take note of the following requirements - At the bottom of the **CONTRACTOR MONTHLY REPORT**, the CLO or Contractor must sign the document as proof that the people indicated have worked the number of days.

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

114 **C9 ADMINISTRATION**

The **Contractor** must allow for **all costs** (including any profit and/or attendance) associated with the appointment, administration, etc. for training and/or payment of the CLO, Students, Interns, Kitchen appliances **as applicable** and included in this tender document. No additional claims in this regard shall be entertained.

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

115 **C10 DECANTING**

The **Contractor's** assistance will be required for the following (specifically in relation to the existing School buildings):

1. Carefully uplifting all loose furniture, etc. and transporting it to the new school buildings when completed.

The **Tenderers** shall inspect the **existing School Buildings** prior to submitting tender prices, in order to establish the extent of the furniture that needs to be uplifted and moved.

The **Tenderers** must allow for **all costs** associated with the above in this item, based on their own assessment.

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

116 **C11 CERTIFICATION**

The **Tenderers** must allow for **all costs** associated with the issuing of all certificates as per the **General Specification Document for Modular Prefabricated System** issued with this tender document as a minimum requirement, without which no final completion will be certified by the **Principal Agent**.

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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<p><b><u>SECTION No. 2: RAFT FOUNDATIONS FOR ACT BUILDINGS</u></b></p>			
<p><b><u>BILL No. 1: FOUNDATIONS</u></b></p>			
<p>The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents</p>			
<p><b><u>EARTHWORKS</u></b></p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p>The reinforced concrete raft foundations must comply in all aspects with the "Raft foundation procedure and acceptance criteria" requirements, set out in this section.</p>			
<p><b><u>Nature of ground</u></b></p>			
<p>Description of excavations shall be deemed to include all ground conditions classifiable as earth and where conditions of a more difficult character might be encountered, these are separately measured</p>			
<p>A soils investigation has been carried out by the Engineer and the report is annexed to these Bills of Quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as earth described in the above report and where conditions of a more difficult character are indicated, these are separately measured</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stockpiles situated on the building site</p>			
<p><b><u>Reinforcement</u></b></p>			
<p>Reinforcement to include 30MPa concrete cover blocks to ensure correct cover to reinforcing</p>			
<p><b><u>Raft foundation procedure and acceptance criteria</u></b></p>			
<p>The purpose of the procedures and requirements below are to reduce the risk to both the Client and the Contractor. It ensures that</p>			
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<p>Section No. 2 RAFT FOUNDATIONS FOR ACT BUILDINGS Bill No. 1 FOUNDATIONS</p>		R	

the completed foundations are accurately constructed within specifications with the minimum waste of materials and time.

The implications of the requirements must be understood before work commences. Contact the Engineer if any clarifications are required.

1. Protection of excavations

The Contractor must allow in his pricing for the protection of excavations for raft foundations. Caving of edges of ground beam excavations will lead to wastage of concrete with substantial cost implications to the Contractor.

Various methods can be adopted by the Contractor to protect against caving in. The following are possible measures that can be considered:

- Laying down of scaffold planks on edges of trenches for ground beams.
- Cement stabilizing the 150mm gravel layer under the floor slab to limit caving in of edges.

The Contractor must also be aware of the installation of insulation materials under the reinforced slabs and to the sides of ground beams. These insulation boards are fragile and care must be taken during fixing of reinforcing and placing of concrete. It may require the provision of gangplanks over work areas during construction.

Regardless of the construction methods and protection measures adopted, it will be deemed to be included in the tendered rates.

2. Earthworks Platforms

Before the commencement of the excavations for the raft foundation, the following must be complied with:

- The position and level of the platform must be surveyed and confirmed by a competent registered land surveyor or engineering surveyor in writing to the Engineer.
- Positions and levels of platform must be in accordance with SANS 2001-BE1: 2008 Earthworks General Table 1, Degree of Accuracy I, subject to the further tolerances below.
- Final Platform levels under raft foundations must be within the following vertical tolerances:
  - o Permissible Deviation from design level in any position = + 5mm and minus 20mm.
  - o Permissible Deviation under 3m straight edge = 15mm
- The quality of the fill material used must be confirmed in

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writing to the Engineer.

- Compaction test must prove that compaction specifications have been reached.
- The surface of the platform must be uniform and neatly trimmed with no loose material or silt.

Excavations for ground beams may only commence when all of the above has been complied with and the Engineer has given written consent for excavations to commence.

### 3. Raft foundation Construction.

The Contractor must have sufficient shuttering on site to shutter the complete section of the raft foundation between the expansion joints shown on the drawings. The shuttering must be sturdy and properly anchored to prevent any movement during placing of concrete. Makeshift shuttering will not be allowed.

Before any inspection by the Engineer is requested by the Contractor, the following must be complied with:

- All shuttering must be fixed in final position.
- The quality of the earthworks below must have been confirmed in writing (density, material quality and position)
- A calibrated laser level that will be used during the placing of the concrete must be available on site.
- The positions of shutters must be checked and confirmed by measuring with a calibrated steel tape by a competent person and confirmed in writing that the check has been done.
- All reinforcing must be securely fixed in correct positions and cover blocks must be provided to ensure correct cover.
- Dampcourse and/or insulation boards must be in final position and all holes patched.
- All dirt and loose material must be removed.
- All services to be cast into the raft foundation must be in position and approved by the Architect or Electrical Engineer.

The relevant documentation and written confirmation (quality control check sheet, photographic record, etc.) must be in possession of the Engineer before a request for an inspection can be lodged. Notice of at least 48 hours falling within a work week must be given.

After the placing of concrete and finishing of the floor surface, an approved curing compound must be applied to the finished floor

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	surface.				
	<b><u>EXCAVATION, FILLING, ETC.</u></b>				
	<b><u>Excavation in earth not exceeding 2m deep:</u></b>				
1	Ground beam trenches	m3	37		
	<b><u>Extra over trench and hole excavations in earth for excavation in:</u></b>				
2	Soft rock	m3	7		
3	Hard rock	m3	4		
	<b><u>Extra over all excavations for carting off site to a location to be identified by the Contractor:</u></b>				
4	Surplus material from excavations and/or stockpiles	m3	37		
	<b><u>Risk of collapse of excavations:</u></b>				
5	Sides of trench and hole excavations not exceeding 1,5m deep	m2	263		
	<b><u>Keeping excavations free of water:</u></b>				
6	Keeping excavations free of all water other than subterranean water			Item	
	<b><u>Compaction of surfaces:</u></b>				
7	Compaction of in-situ surfaces, etc. including scarifying for a depth of 150mm, breaking down oversized material and compacting to a minimum of 90% Mod AASHTO dry density	m2	648		
	<b><u>Coarse river sand filling:</u></b>				
8	Under raft slabs, etc.	m3	19		
	<b><u>SOIL POISONING</u></b>				
	<b><u>Soil insecticide in accordance with SANS 5859 (compliance certificate will be required after completion):</u></b>				
9	Under floors, etc. including forming and poisoning shallow furrows against foundation walls, etc. filling in furrows and ramming	m2	589		
10	To bottoms and sides of trenches, etc.	m2	322		
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**CONCRETE, FORMWORK & REINFORCEMENT**

**SUPPLEMENTARY PREAMBLES**

**Concrete**

All concrete work to be carried out in accordance with SABS 1200G

**Cost of tests**

The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Principal Agent (test cubes are measured separately)

**Formwork**

Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use

The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself

Formwork to soffits of solid slabs, etc. shall be deemed to be slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, ground beams, etc. will only be measured where it is prescribed by the Engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in this section

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**25MPa/19mm Concrete:**

11	Ground beams	m3	37
12	Raft slabs	m3	55

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13	Slabs to falls	m3	16
<b><u>CONCRETE TESTS</u></b>			
<b><u>Test blocks:</u></b>			
14	Making and testing a set of three 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	12
<b><u>CONCRETE SUNDRIES</u></b>			
<b><u>Finishing top surfaces of concrete with broom/brush finish:</u></b>			
15	Slabs, etc. to falls to achieve an even slope	m2	134
<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u></b>			
<b><u>Smooth formwork to sides:</u></b>			
16	Edges, risers, ends and reveals exceeding 300mm high or wide	m2	122
<b><u>MOVEMENT JOINTS, ETC. (PROVISIONAL)</u></b>			
<b><u>Saw cut joints:</u></b>			
17	6 x 30mm In top of concrete	m	76
<b><u>STEEL REINFORCEMENT (PROVISIONAL)</u></b>			
<b><u>Mild steel reinforcement to structural concrete work:</u></b>			
18	8mm Diameter bars	t	0.73
<b><u>High tensile steel reinforcement to structural concrete work:</u></b>			
19	12mm Diameter bars	t	4.12
20	10mm Diameter bars	t	1.24
<b><u>Fabric reinforcement:</u></b>			
21	Type 245 fabric reinforcement in concrete slabs, etc.	m2	589

**DAMPPROOFING OF WALLS AND FLOORS**

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**One layer of 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:**

22	Under raft beams	m2	322
23	Under raft slabs	m2	618

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<p><b><u>SECTION No. 3: MODULAR PREFABRICATED CONSTRUCTION SYSTEM</u></b></p>			
<p><b><u>BILL No. 1: ADMINISTRATION &amp; NUTRITION BLOCK</u></b></p>			
<p>Tenderers are referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents</p>			
<p>Tenderers are to include all costs related to design, manufacture, supply and installation of their proposed Modular Prefabricated Construction System offered. The descriptions and items below are a guide to components within the required buildings and no claims for items not defined will be entertained. Tenderers must be active Agreement SA Certificate holders (valid and current Certificate of Registration to be supplied)</p>			
<p>Tenderers are to note that this school is in a coastal area and all elements pertaining to the school structure need to be designed accordingly</p>			
<p>Tenderers are to ensure that the Modular Prefabricated Construction System complies with the General Specification including certification requirements issued with this tender, no additional costs will be entertained to ensure compliance</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p>Tenderers are to measure and price for the design, manufacture, supply and installation of the Administration &amp; Nutrition Block complete as per the General Specification for Modular Prefabricated Construction Systems, included as part of this Tender Document and the Architect drawings and schedules attached hereto. Tenderers must measure and price all building items for the entire Administration &amp; Nutrition Block as described in SECTION No. 3 (this Section). The rates must include plant, overheads, attendance and mark up where required.</p>			
<p>No claim arising from brevity of descriptions of items fully described in this section will be entertained.</p>			
<p><b><u>Design, manufacture, deliver and construct Administration &amp; Nutrition Block complete (refer to Architect Drawing issued as part of this Tender Document)</u></b></p>			
<p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p>			
<p>Carried to Collection</p>		R	
<p>Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 1 ADMINISTRATION &amp; NUTRITION BLOCK</p>			

**Cost of tests**

The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect (Test cubes are measured separately)

**REINFORCED CONCRETE**

**25MPa/19mm Concrete:**

1	In slabs	m3	1
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**CONCRETE TESTS**

**Test blocks:**

2	Making and testing a set of three 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	1
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**ROUGH FORMWORK (DEGREE OF ACCURACY III)**

**Rough formwork to sides:**

3	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	10
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**SMOOTH FORMWORK (DEGREE OF ACCURACY II)**

**Smooth formwork to soffits:**

4	Slabs propping up not exceeding 3,5m high above bearing level	m2	6
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**MOVEMENT JOINTS, ETC.**

**Two layers of 0,6mm thick galvanised sheeting with grease in between, in slip joint between concrete slab edge and wall system section, including cement mortar bed:**

5	Slip joint not exceeding 300mm wide	m	10
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**STEEL REINFORCEMENT (PROVISIONAL)**

**Mild steel reinforcement to structural concrete work:**

6	8mm Diameter bars	t	0.01
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	<b><u>High tensile steel reinforcement to structural concrete work:</u></b>		
7	20mm Diameter bars	t	0.02
8	10mm Diameter bars	t	0.02
	<b><u>SUPERSTRUCTURE</u></b>		
	<b><u>External and internal wall structures (Modular Prefabricated Construction System) (measured over all window, door and other openings), including suitable smooth paint finish to external and internal faces</u></b>		
	<b><u>External walls (including all intersections, ends, connections, framing fixed to concrete raft foundations, stiffener framing, insulation, etc.)</u></b>		
9	External wall 2770mm high	m	51
	<b><u>Internal walls (including all intersections, ends, connections, framing fixed to raft foundations, stiffener framing, insulation, etc.)</u></b>		
10	Internal wall 2650mm high	m	39
11	Beamfilling (measured gross to underside of roof sheeting) including dressing up to underside of corrugated roof sheeting	m2	56
	<b><u>Gyproc or other approved fire resistant wall system with a fire rating of up to 2 hours (including all intersections, ends, connections, framing fixed to raft foundations, stiffener framing, insulation, etc.):</u></b>		
12	Firewall (measured gross to underside of roof sheeting), including trimming to suit roof profile and soffit of corrugated roof sheeting	m2	21
13	Ditto, but in roof space	m2	6
	<b><u>Extra over internal and/or external wall structures (Modular Prefabricated Construction System) for forming the following openings, including all required supports, cutting, fitting, waste, ties, finishing off reveals, flat internal cills, sloping external cills, dampproofing, stiffener framing, thickening and strengthening wall system around openings as required, etc.:</u></b>		
14	Opening to suit window size 1000 x 1250mm high (W01)	No	2
15	Opening to suit window size 1000 x 950mm high (W02)	No	7
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16	Opening to suit window size 1000 x 650mm high (W03)	No	3
17	Opening to suit window size 1200 x 900mm high (W08)	No	1
18	Opening to suit door frame size 984 x 2064mm high (D02 & D06)	No	6
19	Opening to suit aluminium double door frame size 1600 x 2032mm high (D03)	No	5
20	Opening to suit strong room door size 940 x 1960mm high (D04)	No	1
21	Opening to suit roller shutter door size 1200 x 900mm high	No	1
	<b><u>Extra over Gyproc fire resistant wall system for forming the following openings, including all required supports, cutting, fitting, waste, ties, finishing off reveals, flat internal cills, sloping external cills, dampproofing, stiffener framing, thickening and strengthening wall system around openings as required, etc.:</u></b>		
22	Opening to suit fire door and frame size 984 x 2064mm high (D10)	No	1
	<b><u>BRICKWORK IN SUPERSTRUCTURE</u></b>		
23	One brick wall	m2	2
	<b><u>BRICKWORK SUNDRIES</u></b>		
	<b><u>Air bricks built into wall system:</u></b>		
24	229 x 152mm Clay vermin proof air brick	No	4
	<b><u>BUILDERS' WORK RELATING TO ELECTRICAL AND MECHANICAL INSTALLATIONS, INCLUDING MAKING GOOD TO ALL FINISHES DISTURBED (PROVISIONAL)</u></b>		
	<b><u>Forming holes through wall system including sealing around, etc.:</u></b>		
25	22 - 32mm Diameter hole for pipe	No	5
26	40 - 50mm Diameter hole for pipe	No	3
	<b><u>WATERPROOFING</u></b>		
	<b><u>JOINT SEALANTS, ETC.</u></b>		
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	<b><u>Clear UV resistant silicone sealant:</u></b>		
27	In pointing externally around external window and door frames	m	75
	<b><u>ROOF COVERING, ETC.</u></b>		
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>		
	<b><u>0.8mm Thick Safintra Zincal AZ150 or other approved IBR profile aluminium-zinc roof sheeting and accessories with a Chromadek finish of colour to Architect's approval, fixed to steel purlins (elsewhere measured) at 1800mm centres, all in accordance with the manufacturer's instructions:</u></b>		
28	Roof covering with pitch not exceeding 25 degrees	m2	183
29	Narrow or broad flute closers	m	87
30	Ridge capping to suit roof profile	m	15
31	Hip capping to suit roof profile	m	30
32	Valley gutter 610mm girth six times bent along girth including all support components, closures along both edges	m	11
	<b><u>RAINWATER DISPOSAL</u></b>		
	<b><u>0.9mm Thick Watertite or other approved seamless aluminium gutters and rainwater pipes with ColourTechG4 finish to Marble White colour, including fixing with heavy duty brackets in accordance with the manufacturer's instructions:</u></b>		
33	140 x 150mm Ogee eaves gutter	m	63
34	Extra over gutter for angle	No	12
35	Extra over gutter for outlet to suit 100 x 75mm rainwater pipe	No	4
36	100 x 75mm Rainwater pipe	m	15
37	Extra over rainwater pipe for bend or shoe	No	8
38	Extra over rainwater pipe for eaves offset to 900mm projection	No	4
39	Extra over rainwater pipe for connecting to rainwater tank inlet (rainwater tank elsewhere measured)	No	1

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<b><u>Wrot Meranti:</u></b>		
46	19mm Quadrant bead planted on	m 70
47	44 x 94mm Rebated frame secured to wall system	m 35
<b><u>Sundries:</u></b>		
48	30 x 1,6mm Galvanised hoop iron cramp 600mm long, with one end fixed to wall system and other end screwed to timber frame	No 42
<b><u>JOINERY FITTINGS (PROVISIONAL)</u></b>		
The references in the descriptions are to the respective joinery details on the Architect's drawings attached to these Bills of Quantities		
All timber shelving to be prepared and painted with three coats or other approved clear varnish.		
All joinery items describing doors and drawers below, are to be inclusive of all furniture complete as described in the joinery details on the Architect's drawings attached to these Bills of Quantities		
<b><u>Store room shelving:</u></b>		
49	15mm Thick wrot laminated softwood shelving fixed to and including SHELCO or other approved heavy duty brackets at 350mm centres, shelving 440mm wide in six tiers as per detail JD1	m 5
<b><u>Strong room shelving:</u></b>		
50	15mm Thick wrot laminated softwood shelving fixed to and including SHELCO or other approved heavy duty brackets at 350mm centres, shelving 350mm wide in six tiers as per detail JD2	m 3
<b><u>Stock room shelving:</u></b>		
51	15mm Thick wrot laminated softwood shelving fixed to and including SHELCO or other approved heavy duty brackets at 349mm centres, shelving 380mm wide in three tiers as per detail JD2	m 4
<b><u>Stock room countertops:</u></b>		
52	32mm Thick Formica or other approved L-shaped countertop for teacher's desk, including 32mm bullnose edge in colour black cherry in two sections, section one consisting of leg room overall size 2918 x 600 x 920mm high, section two consisting of leg room, overall size 1215 x 600 x 920mm high as per JD2	No 1
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<b><u>Reception &amp; Office cupboards:</u></b>				
53	32mm Thick Formica or other approved countertop for reception desk, consisting of one cupboard with double doors, one cupboard with single door, four drawers and worktop with leg room below, overall size 3218 x 600 x 786mm high as per JD3	No	1	
<b><u>Reception &amp; Office worktops:</u></b>				
54	32mm Thick Rustenburg granite top 500mm wide, fixed with and including 50 x 50mm angle support sealed with silicone sealant underneath sliding window, overall length 1200mm as per detail JD3	No	1	
<b><u>Built-in timber bench:</u></b>				
55	Bench 1392mm long formed of four triangular shaped welded support assemblies, each size 390 x 488mm high, consisting of 40 x 40 x 5mm thick steel hollow sections, mitred and welded at all intersections, vertical legs twice holed for and bolted to wall system, supports fitted with and including five 69 x 32mm wrot Merani twice angle rounded slats spaced equally, each slat four times holed for and bolted to steel support under with and including 5mm diameter galvanised steel bolt 40mm long with sunken head, including all assembly thereof, as per JD5	No	3	
<b><u>LOOSE SCHOOL FURNITURE (PROVISIONAL)</u></b>				
The references in the descriptions are to the respective types of loose furniture detailed on the Department of Basic Education Specifications (C5.5 School Furniture Specifications) attached to these Bills of Quantities for tender purposes				
The prices for loose furniture are to include for supply and delivery complete with profit and attendance. References to pages refer to above document.				
<b><u>ADMINISTRATION BUILDING</u></b>				
<b><u>Sick Room:</u></b>				
56	Steel framed single bed with foam mattress (Refer page 30)	No	1	
<b><u>Principal's Office:</u></b>				
57	Principal's desk (Refer page 38)	No	1	
58	Principal's high back chair (Refer page 31)	No	1	
59	Upholstered chair with armrests (Refer page 41)	No	2	
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60	Correspondence rack with 3 divisions (Refer page 34)	No	1
61	Glass door bookcase (Refer page 35)	No	1
62	Timber faced 4 drawer filing cabinet (Refer page 39)	No	1
63	Saligna corner piece (Refer page 37)	No	1
64	Saligna credenza with sliding doors (Refer page 40)	No	1
<b><u>Reception/Admin Office:</u></b>			
65	Correspondence rack with 3 divisions (Refer page 34)	No	1
66	Timber faced 4 drawer filing cabinet (Refer page 39)	No	2
67	Saligna filing rack pigeon hole 30 division (Refer page 33)	No	1
68	Upholstered administrator chair without armrests on castors (Refer page 32)	No	3
69	Saligna stationery cupboard with two doors and shelves (Refer page 36)	No	1
<b><u>DINING AND NUTRITION CENTRE</u></b>			
70	1800 x 900 x 700mm Standard Saligna top table with steel legs	No	4
71	Stackable injection moulded chairs with steel frame - Grade 4 - 6 (Refer page 20)	No	21
<b><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></b>			
<b><u>NAILED UP CEILINGS</u></b>			
<b><u>6mm Thick pressed fibre cement ceiling boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, secured to steel branderings with screws/bolts at maximum 150mm centres:</u></b>			
72	Ceilings fixed not exceeding 1m below steel trusses at approximately 1200mm centres	m2	27
73	Extra over ceiling for 600 x 600mm hinged trap door of 19 x 69mm wrot Meranti framing around, with two sawn softwood cross branders covered with ceiling board and fitted flush in opening	No	1
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	<b><u>6mm Thick pressed fibre cement boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, 38mm wrot sotwood quadrant along edges, ends, etc., secured to steel branderung with screws/bolts at maximum 150mm centres:</u></b>		
74	Eaves soffits (generally 800mm wide) fixed along two edges to steel branderung	m2	46
	<b><u>6.4mm Thick gypsum ceiling boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, secured to steel branderung with screws/bolts at maximum 150mm centres:</u></b>		
75	Ceilings fixed not exceeding 1m below steel trusses at approximately 1200mm centres	m2	91
76	Extra over ceiling for 600 x 600mm hinged trap door of 19 x 69mm wrot Meranti framing around, with two sawn softwood cross branders covered with ceiling board and fitted flush in opening	No	2
	<b><u>CORNICES</u></b>		
	<b><u>Gypsum cornices plugged to walls:</u></b>		
77	75mm Coved cornice	m	135
	<b><u>INSULATION</u></b>		
	<b><u>Mineral wool or other approved ceiling insulation:</u></b>		
78	100mm Thick insulation closely fitted and laid on top of branderung between steel members, etc.	m2	108
	<b><u>FLOOR COVERINGS</u></b>		
	<b><u>2.5mm Thick FloorworX Superflex or other approved fully flexible vinyl sheeting with welded joints in Purple Rain colour (Code MS173), laid in accordance with the manufacturer's specifications on self-levelling screed (elsewhere measured):</u></b>		
79	On floors	m2	85
	<b><u>FloorWorx White PVC Extruda (Code MCB100) or other approved skirting fixed to floors and walls complete:</u></b>		
80	100mm High skirting to floors	m	18

**POLISH, SEALERS, ETC.**

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	<b><u>Dust mop or vacuum the floor to remove loose soil and dust, scrub the floor using a solution of FloorworX Maintain diluted 1:10 with clean water with a rotary machine fitted with a blue pad, remove the residue immediately after scrubbing using a wet/dry vacuum, rinse with clean water using a mop and allow the floor to dry. Dry buff the floor using a rotary or high speed machine fitted with a white pad, apply FloorworX Spray Buff in a fine stream or mist onto the floor in front of a rotary machine fitted with a red pad and work in until dry and achieving a smooth surface and constant level of gloss:</u></b>			
81	On vinyl sheeting to floors	m2	85	
	<b><u>SUNDRIES</u></b>			
82	30 x 3mm Aluminium dividing strip fixed in and including groove in floor	m	10	
	<b><u>IRONMONGERY</u></b>			
	<b><u>Fixing of ironmongery</u></b>			
	Where applicable fixing of ironmongery are to include for any required fixing stainless steel screws, etc.			
	<b><u>Finishes to ironmongery</u></b>			
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin Bronze Lacquered; CH Chromium Plated; SC Satin Chromium Plated; SE Silver Enamelled; GE Grey Enamelled; AS Anodised Silver; AB Anodised Bronze; AG Anodised Gold; ABL Anodised Black; PB Polished Brass; PL Polished and Lacquered; PT Epoxy Coated and SD Sanded			
	<b><u>HINGES, BOLTS, ETC.</u></b>			
	<b><u>Dormakaba or other approved:</u></b>			
83	DBB-SS-009 102 x 75 x 3mm Two ball bearing butt hinge	No	12	
84	PHA3 S DD Three point locking panic bar for double door, door leaf size 1000 x 2270mm high, including cutting to fit door width where required	Sets	2	
	<b><u>Alufab (Pty) Ltd. or other approved:</u></b>			
85	1040 100mm Sinkless hinge with centre pin with standard alignment groove	No	18	
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86	M1519 150mm Lever flush bolt fixed to aluminium door	No	6
<b><u>LOCKS</u></b>			
<b><u>Dormakaba or other approved:</u></b>			
87	DCE-002 round cylinder escutcheon	Pairs	1
88	DO37D SS cylinder deadlock	No	1
89	DO36S SS Cylinder sashlock	No	9
90	DDC106601 MK 66mm Five pin euro-profile cylinder grand master keyed	No	13
91	1450 00 55 ISEO 55mm Backset euro profile cylinder security lock	No	3
<b><u>HANDLES</u></b>			
<b><u>Dormakaba or other approved:</u></b>			
92	CB30 Cyl SC Lever handle set on plate with cylinder cutout	No	9
93	DPH209 BTB 200 x 22mm straight tubular pull handle (fixing sets included)	Pairs	1
<b><u>DOOR STOPS, CABIN HOOKS, ETC.</u></b>			
<b><u>Dormakaba or other approved:</u></b>			
94	DDS-SS-017 Floor mounted door stop	No	4
95	DPS-SS-032 Stainless steel dust proof strike mounted to wall system	No	3
<b><u>Halcast or other approved:</u></b>			
96	401SC Door stop and holder	No	4
97	166 Satin chrome (200mm) on brass cabin hook and eye with and including 100 x 100 x 75mm chamfered wrought Meranti block bolted securely	No	6
<b><u>Howick or other approved:</u></b>			
98	H076 Heavy duty stainless steel spring clip	No	5
<b><u>DOOR CLOSERS</u></b>			
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	<b><u>Dormakaba or other approved:</u></b>				
99	TS73V EN 2-4 regular arm non hold open door closer, including Grade 430 stainless steel suitably sized protection plate, 1,6mm thick holed for door closer screws and fitted on the opposite side of door in same plane as door closer	No	1		
	<b><u>Sundries</u></b>				
100	10mm Diameter steel dowel 100mm long in and including mortice in timber and concrete	No	12		
	<b><u>LETTERS, NAMEPLATES, ETC.</u></b>				
	<u>Contractor to provide samples of nameplates for approval of the Architect</u>				
	<b><u>Dormakaba or other approved:</u></b>				
101	DSS-136 EL Electrical sign	No	1		
102	DSS-137 T Telkom sign	No	1		
103	DSS-135 TC Tea cup sign	No	1		
104	DSS-146 FE Fire extinguisher sign	No	2		
	<b><u>5mm Thick clear perspex nameplate with black vinyl lettering 50mm high, fixed to wall system with four 60mm long wall plugs:</u></b>				
105	Arial font with letters "ADMINISTRATION & NUTRITION BLOCK" on 400 x 600mm high plate	No	1		
	<b><u>Clear perspex nameplate reverse engraved and enamelled in white lettering 25mm high to suit, twice countersunk holed for and tap screwed to timber or steel with chromium plated dome-headed self tapping screws:</u></b>				
106	3mm Thick x 32mm high plate with letters "KITCHEN"	No	1		
107	Ditto, but with letters "PRINCIPAL"	No	1		
108	Ditto, but with letters "SICK ROOM"	No	1		
109	Ditto, but with letters "GENERAL OFFICE"	No	1		
110	Ditto, but with letters "EATING AREA"	No	1		
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111	Ditto, but with letters "STORE ROOM"	No	1
112	Ditto, but with letters "STOCK ROOM"	No	1
113	Ditto, but with letters "DOOR TO REMAIN PERMANENTLY CLOSED"	No	1
<b><u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC.</u></b>			
<b><u>Parrot or other approved carpet pinning boards in aluminium frame with round plastic corners, pen tray and fixing component in accordance with the manufacturer's instructions:</u></b>			
114	Pinning board size 2400 x 1200mm high plugged	No	1
<b><u>Standard wall mounted white built-in type medicine cabinet complete fixed in accordance with the manufacturer's instructions:</u></b>			
115	Medicine cabinet size 380 x 610mm high	No	1
<b><u>BLACK OUT BLINDS</u></b>			
<b><u>Aluvert or other approved 25mm wide plain aluminium horizontal venetian blinds, including all cutting and fitting:</u></b>			
116	Blind for window opening size 1000 x 650mm high	No	3
117	Blind for window opening size 1000 x 950mm high	No	7
118	Blind for window opening size 1000 x 1250mm high	No	2
<b><u>CURTAIN TRACKS</u></b>			
<b><u>Hospi-Track or other approved anodised aluminium bed curtain tracks:</u></b>			
119	Bed curtain track suspended from ceiling including standard Poly-cotton washable dry-hung bed screen curtains and 12 gliders per metre	m	2
120	Extra for plugged end	No	2

**BATHROOM FITTINGS, ETC.**

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121	<p><b><u>Towel rails:</u></b></p> <p>19mm Diameter chromium plated towel rail 600mm long including end brackets plugged to wall system</p>	No	2		
	<p><b><u>STRUCTURAL STEELWORK</u></b></p> <p><b><u>HOT DIP GALVANISED STEEL TRUSSES, ETC.</u></b></p> <p><b><u>Hot dip galvanising:</u></b></p> <p>Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009) and SANS 32, unless otherwise described</p> <p><b><u>All steel to be Grade 350W</u></b></p> <p><b><u>Light weight welded trusses with gussets, connection plates, including all welding, etc.:</u></b></p> <p>The complete roof structure shall be designed by a registered Structural Engineer and must be inspected by the former. A truss certificate, confirming the Engineer's approval of material workmanship, will be required.</p> <p>Any costs relating to the required shop design drawings or truss certificate, shall be deemed to be included in the cost of the roof structure.</p> <p>Shop design drawings will be required for perusal by the client's Structural Engineer, prior to manufacture or erection.</p> <p><b><u>Manufacture, supply and installation complete of galvanised mild steel (17,5 degree pitch) roof truss construction at 1200mm centres complete, including all necessary purlins, runners, bracing and cross bracing, rails for fascias, brandering for ceilings and eaves soffits, etc.:</u></b></p>				
122	<p>Light gauge steel hipped roof structure assembly in three sections with two valley truss projections, main section size 18,94 x 6,46m with two identical hip ends, two valley truss projections size 2,44 x 1,48m and size 2,12 x 1,60m respectively, all sections with 800mm eaves overhang both sides, including all purlins, bracing, etc. (measured on flat) (Administration Block)</p>			Item	
123	<p>Allow for gangboarding in ceiling spaces to maximize accessibility in roof space</p>			Item	
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124	<p>Allow all additional members, cutting and fitting, flashings to render waterproof, etc. through ceiling, trusses, roof sheeting and insulation installations to accommodate kitchen cooker extraction unit and cooker hood (allow for approximately 550mm diameter flue passage)</p>	Item		
	<p><b><u>METALWORK</u></b></p>			
	<p><b><u>Note: Any specific method of fixing of these elements to the wall system needs to be allowed for by Tenderers in the respective items' prices, including any specific requirements for forming openings, bracing, strengthening, etc.</u></b></p>			
	<p><b><u>AAAMSA specification:</u></b></p>			
	<p>All aluminium doors and windows is to comply with the latest AAAMSA specification for architectural aluminium and glass products</p>			
	<p><b><u>Hot dip galvanising:</u></b></p>			
	<p>Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009) and SANS 32, unless otherwise described</p>			
	<p><b><u>ALUMINIUM WINDOWS, DOORS, ETC.</u></b></p>			
	<p><b><u>White powder coated (ANP1052) aluminium windows glazed with NS 6,38mm thick Intruderprufe clear laminated safety glass (powder coated burglar proofing to all opening and fixed sections) as per latest AAAMSA specification for architectural aluminium and glass products:</u></b></p>			
125	<p>Window in two equal top hung opening sections complete with restrictive stays, one mullion, size 1000 x 650mm high (total of two horizontally fixed burglar bars) (W03)</p>	No	3	
126	<p>Window in four sections, two equal fixed sections on bottom and two equal top hung opening out sections with restrictive stays on top, one transome and one mullion, size 1000 x 950mm high (total of three horizontally fixed burglar bars) (W02)</p>	No	7	
127	<p>Window in four equal top hung opening sections complete with restrictive stays, one transome and one mullion, size 1000 x 1250mm high (total of four horizontally fixed burglar bars) (W01)</p>	No	2	
128	<p>Window in two equal sections, one fixed and one sliding horizontally, one mullion, size 1200 x 900mm high (no burglar bars) (W08)</p>	No	1	
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	<b><u>Strong room door assembly complete, including building into wall system (opening elsewhere measured):</u></b>			
133	National Safe NSD-S55 strong room door and frame to suit opening size 940 x 1960mm high, fitted with Z1 seven lever security keylock and all required fittings, complete with grip lugs, approved door stop bolted to wall system, two-sided vent built in, including setting up, adjusting and building in, all in accordance with manufacturer's instructions	No	1	
	<b><u>FRAMED AND WELDED SECURITY GATE ASSEMBLIES</u></b>			
	<b><u>Steel security gates complete including building in as required:</u></b>			
134	Mild steel framed and welded single gate assembly formed of 50 x 50 x 2mm thick hollow section outer frame, mitred and welded at corners, filled in with 10 x 10mm tubular inserts welded to outer frame diagonally at 45 degrees at 100mm centres, including 120mm diameter opening in one leaf for and fitted with 12mm diameter sliding bolt with small handle in centre of one stile, opening formed of 10 x 10mm tubular framing shaped circularly and welded on, gate fitted with two heavy duty hinges (elsewhere measured) welded on and bolted to wall system, including setting up, adjusting and securing, size 1000x 2100mm high (G05)	No	2	
135	Hot dip galvanised steel framed and welded double gate assembly in two equal leaves, each leaf formed of 50 x 50 x 2mm square hollow section outer frame, mitred and welded at corners, filled in with 10 x 10mm tubular inserts welded to outer frame diagonally at 45 degrees at 100mm centres, including 120mm diameter opening in one leaf for and fitted with 12mm diameter sliding bolt with small handle in centre of one stile, opening formed of 10 x 10mm tubular framing shaped circularly and welded on, each leaf fitted with two heavy duty hinges (elsewhere measured) welded on and bolted to wall system, including setting up, adjusting and securing, size 1860 x 2100mm high (G06)	No	2	
	<b><u>HOT DIP GALVANISED STEEL COLUMNS AND BEAMS</u></b>			
	<b><u>Purpose made roof supports, columns, etc.:</u></b>			
136	90 x 90 x 3mm Thick hollow section column 3085mm long, with and including 150 x 150 x 10mm thick baseplate twice holed for bolt (elsewhere measured), welded on to bottom end, top end fitted with and including 150 x 3mm thick U shaped bracket 375mm long welded on, four times holed for bolt (elsewhere measured), including setting up in position, adjusting, etc.	No	4	
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	<b><u>Sundries:</u></b>		
137	Hot dip galvanised bolts, etc.	kg	2
138	12mm Diameter hot dip galvanised rawlbolt 100mm long with nut and washer, including fixing to concrete	No	8
	<b><u>HOT DIP GALVANISED WELDED GAS CAGES</u></b>		
	<b><u>Gas cage assembly including securely bolting to wall system:</u></b>		
139	Framed and welded gas cage with all components to meet legislative requirements (to enclose 4 x 48kg gas bottles - supplied by others), size overall 1850 x 580 x 1440mm high	No	1
	<b><u>PLASTERING</u></b>		
	<b><u>SCREEDS</u></b>		
	<b><u>3:1 Cement screed (SANS 2001) steel trowelled on concrete:</u></b>		
140	30mm Thick on floors	m2	114
	<b><u>TAL Screedmaster or other approved self-levelling screed applied in accordance with the manufacturer's instructions:</u></b>		
141	3 - 8mm Thick on screed (elsewhere measured)	m2	88
	<b><u>SPECIALIST EPOXY FLOOR FINISHES</u></b>		
	All specialist floor coverings are to be executed in strict accordance with the manufacturer's instructions		
	<b><u>Chemical resistant epoxy floor paint:</u></b>		
142	On screed	m2	26
	<b><u>TILING</u></b>		
	<b><u>WALL TILING</u></b>		
	<b><u>200 x 200 x 6,5mm Thick matt white glazed ceramic tiles fixed to wall system with approved tile adhesive, 3mm wide continuous joints in both directions, pointed with dark grey anti-fungicidal grout:</u></b>		
143	On walls	m2	34
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144	On walls in isolated panels, splashbacks, etc.	m2	0.2
145	On narrow widths	m2	3
<b><u>FLOOR TILING</u></b>			
<b><u>200 x 100 x 50mm Thick brick paver in single row laid and epoxy grouted in and including recess in top edge of concrete slab as margin:</u></b>			
146	Margin as described	m	10
<b><u>GLAZING</u></b>			
<b><u>TOPS, SHELVES, DOORS, MIRRORS, ETC.</u></b>			
<b><u>6mm Thick 'GG' quality polished silvered float glass copper backed mirror with polished edges holed for and fixed with round rose chromium plated mirror screws fixed to wall system:</u></b>			
147	Mirror size 450 x 600mm high with four screws	No	1
<b><u>PAINTWORK</u></b>			
<b><u>ON INTERNAL FLOATED PLASTER OR SKIMMED SURFACES</u></b>			
<b><u>Prepare and apply one coat plaster primer, one undercoat and two coats interior quality acrylic emulsion paint on:</u></b>			
148	Internal concrete soffit (smooth formwork finish)	m2	5
<b><u>ON FIBRE CEMENT</u></b>			
<b><u>Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one universal undercoat and two coats exterior quality acrylic emulsion paint on:</u></b>			
149	Eaves soffits, etc.	m2	53
150	Fascias, etc.	m2	22

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	<b><u>Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer and two coats interior quality acrylic emulsion paint on:</u></b>			
151	Ceilings and cornices	m2	20	
	<b><u>ON GYPSUM PLASTERBOARD</u></b>			
	<b><u>Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one undercoat and two coats interior quality acrylic emulsion paint on:</u></b>			
152	Ceilings and cornices	m2	91	
	<b><u>ON STEEL</u></b>			
	<b><u>Prepare and apply one coat zinc chromate primer, one undercoat and two coats high gloss enamel paint on:</u></b>			
153	Mild steel framed grille gate (both sides measured - on flat)	m2	5	
154	Mild steel frames not exceeding 300mm wide	m	5	
	<b><u>ON WOOD</u></b>			
	<b><u>Two coats wood primer on:</u></b>			
155	Backs of frames, linings, etc. not exceeding 300mm wide.	m	35	
	<b><u>Prepare and apply three coats polyurethane matt varnish, including sanding down between all coats, on:</u></b>			
156	Skirtings, cornices, rails, etc. not exceeding 300mm girth	m	74	
	<b><u>Prepare and apply three coats Nova 16 Novaglow with a Kiaat finish, including sanding down between all coats, on:</u></b>			
157	Doors (both sides measured)	m2	28	
158	Frames, etc. not exceeding 300mm girth	m	35	
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>			
	<b><u>Sanitary Plumbing</u></b>			
	<b><u>Unplasticised polyvinyl chloride (uPVC) pipes:</u></b>			
159	40mm Pipe fixed to walls, etc.	m	4	
	<b>Carried to Collection</b>			
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 1 ADMINISTRATION & NUTRITION BLOCK			

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	<b><u>Extra over uPVC pipes for:</u></b>		
160	40mm Bend	No	5
161	40mm Access bend	No	2
162	40mm Access junction	No	1
	<b><u>Testing:</u></b>		
163	Allow for testing sanitary plumbing system		Item
	<b><u>WATER SUPPLIES</u></b>		
	<b><u>Internal water supplies:</u></b>		
	<b><u>Polycop or other approved polypropylene pipes, including chasing into brick walls if required:</u></b>		
164	22mm Pipe	m	19
	<b><u>Extra over Polycop pipes for brass compression fittings:</u></b>		
165	22mm Pipe fittings	No	20
	<b><u>Testing:</u></b>		
166	Allow for testing water supply system		Item
	<b><u>SANITARY FITTINGS</u></b>		
	<b><u>Supply and fix the following sanitary fittings, geysers and equipment together with loose ancillary fittings supplied therewith, including unloading, storing, unpacking, hoisting or lowering as required, fixing and building into position, cutting all mortices and chases as required for fixing and building in position, cutting, brackets, clamps, etc. and connecting up pipework and handing over in perfect working order at completion:</u></b>		
	<b><u>Vaal or other approved:</u></b>		
167	Hibiscus Ref 7023 white vitreous china wall hung basin, size 510 x 405mm with stopper to one taphole and fixed to wall system	No	1
	<b><u>Franke or other approved grade 304 (18/10) polished stainless steel:</u></b>		
168	Mini wall table F20603Z size 1800 x 600 x 1050mm	No	2
	<b>Carried to Collection</b>		
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169	Model E20618D catering sink size 2400 x 650mm, complete with four F1083 pillar taps including earthing lug with two tap holes per bowl behind each bowl securely fitted to floor, complete with 38mm waste and standpipe strainer overflow (underframe not to be included)	No	1		
	<b><u>TAPS, VALVES, ETC.</u></b>				
	<b><u>Cobra Watertech or other approved:</u></b>				
170	15mm Star 112-CP raised nose pillar tap	No	1		
	<b><u>WASTE UNIONS, TRAPS, ETC.</u></b>				
	<b><u>Marley or other approved:</u></b>				
171	32 x 40mm Flexitrap butyl rubber deep seal P or S trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	1		
172	40 x 40mm Flexitrap butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	2		
	<b><u>Cobra Watertech or other approved:</u></b>				
173	32mm Chromium plated deep seal bottle trap with outlet for 50mm PVC pipe (Code 345/50).	No	1		
174	32mm Chromium plated 303-CP slotted basin waste union complete with plug only	No	1		
	<b><u>Floor drains, etc:</u></b>				
175	Grease trap OVE GT 500 full flow grease trap fitted and connected complete	No	1		
176	Herbish HB 200 V (H) NW 100 or other approved stainless steel (Grade 304) floor drain with vertical bottom outlet size 240 x 240 x 210mm deep, fitted and connected complete	No	1		
	<b><u>FIRE APPLIANCES, ETC.</u></b>				
	<b><u>Fire hose reels, etc.:</u></b>				
177	4,5kg Dry chemical powder fire extinguisher fixed to wall system with wrot Meranti backboard, size 520 x 100 x 22mm thick complete with hook	No	2		
	<b><u>KITCHEN EQUIPMENT (PROVISIONAL)</u></b>				
	<b>Carried to Collection</b>				
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 1 ADMINISTRATION & NUTRITION BLOCK				R



<b><u>Dining room kitchen cutlery:</u></b>		
178	Coffee mug ss	No 100
179	Soup spoon ss	No 100
180	Table fork ss	No 100
181	Table knife ss	No 100
182	Medium size pie dish ss	No 100
183	Four division cutlery tray size 500 x 300mm	No 2
184	60 Litre pot casserole ss	No 2
185	30 Litre pot casserole ss	No 2
186	340mm Colander ss	No 2
187	600mm Pap stirrer ss	No 2
188	400mm Pot fork ss	No 2
189	224ml Blue portion server	No 2
190	225ml Lable solid	No 2
191	3 Piece Victorinox classic prism paring set	No 2
192	200mm Knife grunter	No 2
193	Potato peeler	No 2
194	500 x 380 x 13mm Green cutting board	No 1
195	500 x 380 x 13mm Red cutting board	No 1
196	500 x 380 x 13mm Yellow cutting board	No 1
197	Storage container with plastic lid	No 3
198	400mm Oven mitt red leather	No 2
<b><u>Staff room kitchen cutlery:</u></b>		
199	Tea cup non-stackable	No 10

**Carried to Collection**

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200	Double well saucer	No	10
201	Teaspoon ss	No	10
202	Table fork ss	No	10
203	Table knife ss	No	10
204	17cm Round plate	No	10
205	25cm Round plate	No	10
206	140ml Sugar bowl with hinged lid	No	1
207	140ml Milk jug ss	No	1
208	1,2 Litre tea pot ss	No	1
209	Four division cutlery tray size 500 x 300mm	No	1

**Carried to Collection**

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Section No. 3

Bill No. 1

ADMINISTRATION & NUTRITION BLOCK

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MODULAR PREFABRICATED CONSTRUCTION SYSTEM

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Section No. 3

MODULAR PREFABRICATED CONSTRUCTION SYSTEM

Bill No. 1

ADMINISTRATION & NUTRITION BLOCK

Item No	Quantity	Rate	Amount
<p><b><u>SECTION No. 3: MODULAR PREFABRICATED CONSTRUCTION SYSTEM</u></b></p>			
<p><b><u>BILL No. 2: COMPUTER, LIBRARY &amp; SCIENCE BLOCK</u></b></p>			
<p>Tenderers are referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents</p>			
<p>Tenderers are to include all costs related to design, manufacture, supply and installation of their proposed Modular Prefabricated Construction System offered. The descriptions and items below are a guide to components within the required buildings and no claims for items not defined will be entertained. Tenderers must be active Agreement SA Certificate holders (valid and current Certificate of Registration to be supplied)</p>			
<p>Tenderers are to note that this school is in a coastal area and all elements pertaining to the school structure need to be designed accordingly</p>			
<p>Tenderers are to ensure that the Modular Prefabricated Construction System complies with the General Specification including certification requirements issued with this tender, no additional costs will be entertained to ensure compliance</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p>Tenderers are to measure and price for the design, manufacture, supply and installation of the Computer, Library &amp; Science Block complete as per the General Specification for Modular Prefabricated Construction Systems, included as part of this Tender Document and the Architect drawings and schedules attached hereto. Tenderers must measure and price all building items for the entire Computer, Library &amp; Science Block as described in SECTION No. 3 (this Section). The rates must include plant, overheads, attendance and mark up where required.</p>			
<p>No claim arising from brevity of descriptions of items fully described in this section will be entertained.</p>			
<p><b><u>Design, manufacture, deliver and construct Computer, Library &amp; Science Block complete (refer to Architect Drawing issued as part of this Tender Document)</u></b></p>			
<p><b><u>SUPERSTRUCTURE</u></b></p>			
<p><b>Carried to Collection</b></p>		R	
<p>Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 2 COMPUTER, LIBRARY &amp; SCIENCE BLOCK</p>			

<p><b><u>External and internal wall structures (Modular Prefabricated Construction System) (measured over all window, door and other openings), including suitable smooth paint finish to external and internal faces</u></b></p>				
<p><b><u>External Walls (including all intersections, ends, connections, framing fixed to concrete raft foundations, stiffener framing, insulation, etc.)</u></b></p>				
1	External wall 2770mm high	m	33	
<p><b><u>Internal Walls (including all intersections, ends, connections, framing fixed to raft foundations, stiffener framing, insulation, etc.)</u></b></p>				
2	Internal wall 2650mm high	m	6	
3	Beamfilling (measured gross to underside of roof sheeting) including dressing up to underside of corrugated roof sheeting	m2	22	
<p><b><u>Extra over internal and/or external wall structures (Modular Prefabricated Construction System) for forming the following openings, including all required supports, cutting, fitting, waste, ties, finishing off reveals, flat internal cills, sloping external cills, dampproofing, stiffener framing, thickening and strengthening wall system around openings as required, etc.:</u></b></p>				
4	Opening to suit window size 1000 x 1248mm high (W05)	No	8	
5	Opening to suit door frame size 984 x 2064mm high (D01, D02)	No	2	
<p><b><u>BRICKWORK SUNDRIES</u></b></p>				
<p><b><u>Air bricks built into wall system:</u></b></p>				
6	229 x 152mm Clay vermin proof air brick	No	4	
<p><b><u>BUILDERS' WORK RELATING TO ELECTRICAL AND MECHANICAL INSTALLATIONS, INCLUDING MAKING GOOD TO ALL FINISHES DISTURBED (PROVISIONAL)</u></b></p>				
<p><b><u>Forming holes through wall system including sealing around, etc.:</u></b></p>				
7	22 - 32mm Diameter hole for pipe	No	2	
8	40 - 50mm Diameter hole for pipe	No	2	
<p style="text-align: center;"><b>Carried to Collection</b></p>				
<p>Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 2 COMPUTER, LIBRARY &amp; SCIENCE BLOCK</p>				R

**WATERPROOFING**

**JOINT SEALANTS, ETC.**

**Clear UV resistant silicone sealant:**

9	In pointing externally around external window and door frames	m	41
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**ROOF COVERING, ETC.**

**PROFILED METAL SHEETING AND ACCESSORIES**

**0,8mm Thick Safintra Zincal AZ150 or other approved IBR profile aluminium-zinc roof sheeting and accessories with a Chromadek finish of colour to Architect's approval, fixed to steel purlins (elsewhere measured) at 1800mm centres, all in accordance with the manufacturer's instructions:**

10	Roof covering with pitch not exceeding 25 degrees	m2	125
11	Narrow or broad flute closers	m	48
12	Ridge capping to suit roof profile	m	2
13	Hip capping to suit roof profile	m	29

**RAINWATER DISPOSAL**

**0,9mm Thick Watertite or other approved seamless aluminium gutters and rainwater pipes with ColourTechG4 finish to Marble White colour, including fixing with heavy duty brackets in accordance with the manufacturer's instructions:**

14	140 x 150mm Ogee eaves gutter	m	43
15	Extra over gutter for stopped end	No	2
16	Extra over gutter for outlet to suit 100 x 75mm rainwater pipe	No	2
17	100 x 75mm Rainwater pipe	m	7
18	Extra over rainwater pipe for bend or shoe	No	6
19	Extra over rainwater pipe for eaves offset to 900mm projection	No	2
20	Extra over rainwater pipe for connecting to rainwater tank inlet (rainwater tank elsewhere measured)	No	2

**Carried to Collection**

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Section No. 3  
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Bill No. 2  
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	<b><u>Sundries:</u></b>		
21	150mm Wide expanded aluminium mesh leaf guard fixed to gutter in accordance with the manufacturer's instructions	m	44
	<b><u>ROOF INSULATION</u></b>		
	<b><u>Envirotuff 203 or other approved double sided industrial grade insulation:</u></b>		
22	Laid taut over steel purlins at approximately 1800mm centres, fixed concurrent with roof covering, including galvanised steel straining wires, laps, etc.	m2	119
	<b><u>CARPENTRY AND JOINERY</u></b>		
	<b><u>EAVES, VERGES, ETC.</u></b>		
	<b><u>Pressed fibre cement:</u></b>		
23	12 x 225mm Fascia fixed vertically to and including required steel members at end of roof trusses (elsewhere measured) with brass screws, including H-profile PVC joint strips, caps, etc.	m	44
	<b><u>SKIRTINGS, RAILS, ETC.</u></b>		
	<b><u>Wrot Meranti:</u></b>		
24	32 x 50mm Cover strip	m	78
25	19 x 69mm Angle rounded dado rail	m	26
26	19 x 69mm Angle rounded skirting with 19mm quadrant bead	m	31
	<b><u>SOLID TIMBER DOORS</u></b>		
	<b><u>Wrot Meranti:</u></b>		
27	44mm Thick framed and braced battened door, formed of 44 x 107mm stiles and top rail, 44 x 219mm bottom rail, 22 x 69mm diagonal brace, with stiles, top and bottom rails once rebated for and filled in with 22 x 69mm tongued, grooved and V-jointed vertical boarding, with braces brass screwed to every board, size 920 x 2032mm high (D02)	No	1
	<b>Carried to Collection</b>		
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 2 COMPUTER, LIBRARY & SCIENCE BLOCK		

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28	44mm Thick framed and braced battened door, formed of 44 x 107mm stiles and top rail, 44 x 219mm bottom rail, 22 x 69mm diagonal brace, with stiles, top and bottom rails once rebated for and filled in with 22 x 69mm tongued, grooved and V-jointed vertical boarding, with braces brass screwed to every board, and including external timber weather bar, size 920 x 2032mm high (D01)	No	1
<b><u>FRAMES, ETC.</u></b>			
<b><u>Wrot Meranti:</u></b>			
29	19mm Quadrant bead planted on	m	20
30	44 x 94mm Rebated frame securely fixed to wall system	m	10
<b><u>Sundries:</u></b>			
31	30 x 1,6mm Galvanised hoop iron cramp 600mm long, with one end fixed to wall system and other end screwed to timber frame	No	12
<b><u>JOINERY FITTINGS (PROVISIONAL)</u></b>			
The references in the descriptions are to the respective joinery details on the Architect's drawings attached to these Bills of Quantities for tender purposes.			
All timber shelving to be prepared and painted with three coats or other approved clear varnish.			
All joinery items describing doors and drawers below, are to be inclusive of all furniture complete as described in the joinery details on the Architect's drawings attached to these Bills of Quantities.			
<b><u>Bookshelves:</u></b>			
32	2000mm High island shelf divided vertically back to back in two sides with 60mm thick laminated Pine divide panel, each side with 15mm thick laminated Pine shelving fixed to SHELCO or other approved heavy duty brackets with suitable fixing lugs at 443mm centres, shelving 305mm wide in two tiers and 15mm thick laminated Pine shelving fixed to SHELCO or other approved heavy duty brackets with suitable fixing lugs at 443mm centres, shelving 450mm wide in two tiers and island supported on 1772 x 670 x 19mm thick wrot Meranti base and 135 x 19mm thick wrot Meranti bearer/skirting with 19mm quadrant nailed on, complete as per JD9	No	1
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<b><u>Computer stations:</u></b>				
33	32mm Thick Formica or other approved countertop for computer desks consisting of 16mm thick Melamine carcass with five cpu spaces with drawer above and worktop with leg room in between, overall size 5900 x 700 x 750mm high as per JD10	No	1	
<b><u>Store room:</u></b>				
34	5mm Thick laminated shelving fixed to SHELCO or other approved heavy duty brackets with suitable fixing lugs at 350mm centres, shelving 343mm wide in three tiers as per JD11	m	3	
35	32mm Thick Formica or other approved countertop for worktop consisting of 16mm thick Melamine carcass, one cupboards with single door and one section with four drawers, overall size 2055 x 600 x 900mm high as per JD11	No	1	
36	32mm Thick Formica or other approved countertop for worktop consisting of 16mm thick Melamine carcass, two cupboards with double doors, one cupboard with single door, overall size 3350 x 600 x 900mm high as per JD11	No	1	
<b><u>Teachers desk:</u></b>				
37	32mm Thick laminated Meranti L-shaped countertop with bullnose edge finish for teacher's desk consisting of 16mm thick Melamine carcass in two sections, one section consisting of one cupboard with double door overall size 1750 x 600 x 880mm high, section two consisting of four drawers with leg room, overall size 1380 x 600 x 880mm high as per JD13	No	1	
<b><u>LOOSE SCHOOL FURNITURE (PROVISIONAL)</u></b>				
The references in the descriptions are to the respective types of loose furniture detailed on the Department of Basic Education Specifications (C5.5 School Furniture Specifications) attached to these Bills of Quantities for tender purposes				
The prices for loose furniture are to include for supply and delivery complete with profit and attendance. References to pages refer to above document.				
<b><u>COMPUTER/LIBRARY/SCIENCE</u></b>				
38	Stackable injection moulded chairs with steel frame - Grade 4 - 6 (Refer page 20)	No	21	
39	Teacher's upholstered chair without armrests (Refer page 25)	No	2	
<b>Carried to Collection</b>				
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40	1200mm Diameter standard Saligna table with steel legs	No	3
41	Teacher's Classroom desk (Refer page 26)	No	1
42	Wooden bookshelf with three adjustable shelves (Refer page 36)	No	2
43	Saligna stationery cupboard with two doors and shelves (Refer page 36)	No	1

**CEILINGS, PARTITIONS AND ACCESS FLOORING**

**NAILED UP CEILINGS**

**6mm Thick pressed fibre cement ceiling boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, secured to steel brandering with screws/bolts at maximum 150mm centres:**

44	Ceilings fixed not exceeding 1m below steel trusses at approximately 1200mm centres	m2	24
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**6mm Thick pressed fibre cement boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, 38mm wrot softwood quadrant along edges, ends, etc., secured to steel brandering with screws/bolts at maximum 150mm centres:**

45	Eaves soffits (generally 800mm wide) fixed along two edges to steel brandering	m2	30
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**6.4mm Thick gypsum ceiling boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, secured to steel brandering with screws/bolts at maximum 150mm centres:**

46	Ceilings fixed not exceeding 1m below steel trusses at approximately 1200mm centres	m2	62
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47	Extra over ceiling for 600 x 600mm hinged trap door of 19 x 69mm wrot Meranti framing around, with two sawn softwood cross branders covered with ceiling board and fitted flush in opening	No	1
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**CORNICES**

**Gypsum cornices plugged to walls:**

48	75mm Coved cornice	m	70
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**INSULATION**

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	<b><u>Mineral wool or other approved ceiling insulation:</u></b>				
49	100mm Thick insulation closely fitted and laid on top of bracing between steel members, etc.	m2	62		
	<b><u>FLOOR COVERINGS</u></b>				
	<b><u>2,5mm Thick FloorworX Superflex or other approved fully flexible vinyl sheeting with welded joints in Citrus colour (Code MS153), laid in accordance with the manufacturer's specifications on self-levelling screed (elsewhere measured):</u></b>				
50	On floors	m2	61		
	<b><u>POLISH, SEALERS, ETC.</u></b>				
	<b><u>Dust mop or vacuum the floor to remove loose soil and dust, scrub the floor using a solution of FloorworX Maintain diluted 1:10 with clean water with a rotary machine fitted with a blue pad, remove the residue immediately after scrubbing using a wet/dry vacuum, rinse with clean water using a mop and allow the floor to dry. Dry buff the floor using a rotary or high speed machine fitted with a white pad, apply FloorworX Spray Buff in a fine stream or mist onto the floor in front of a rotary machine fitted with a red pad and work in until dry and achieving a smooth surface and constant level of gloss:</u></b>				
51	On vinyl sheeting to floors	m2	61		
	<b><u>SUNDRIES</u></b>				
52	30 x 3mm Aluminium dividing strip fixed in and including groove in floor	m	1		
	<b><u>IRONMONGERY</u></b>				
	<b><u>Fixing of ironmongery</u></b>				
	Where applicable fixing of ironmongery are to include for any required fixing stainless steel screws, etc.				
	<b><u>Finishes to ironmongery</u></b>				
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin Bronze Lacquered; CH Chromium Plated; SC Satin Chromium Plated; SE Silver Enamelled; GE Grey Enamelled; AS Anodised Silver; AB Anodised Bronze; AG Anodised Gold; ABL Anodised Black; PB Polished Brass; PL Polished and Lacquered; PT Epoxy Coated and SD Sanded				
	<b>Carried to Collection</b>				
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**HINGES, BOLTS, ETC.**

**Dormakaba or other approved:**

53	DBB-SS-009 102 x 75 x 3mm Two ball bearing butt hinge	No	5
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**LOCKS**

**Dormakaba or other approved:**

54	DO36S SS Cylinder sashlock	No	2
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55	DDC106601 MK 66mm Five pin euro-profile cylinder grand master keyed	No	4
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56	1450 00 55 ISEO 55mm Backset euro profile cylinder security lock	No	2
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**HANDLES**

**Dormakaba or other approved:**

57	CB30 Cyl SC Lever handle set on plate with cylinder cutout	No	2
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**DOOR STOPS, CABIN HOOKS, ETC.**

**Dormakaba or other approved:**

58	DDS-SS-017 Floor mounted door stop	No	1
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**Halcast or other approved:**

59	401SC Door stop and holder	No	1
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**Howick or other approved:**

60	H076 Heavy duty stainless steel spring clip	No	2
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**Sundries**

61	10mm Diameter steel dowel 100mm long in and including mortice in timber and concrete	No	4
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**LETTERS, NAMEPLATES, ETC.**

Contractor to provide samples of nameplates for approval of the Architect

**Carried to Collection**

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	<b><u>Dormakaba or other approved:</u></b>				
62	DSS-146 FE Fire extinguisher sign	No	1		
	<b><u>5mm Thick clear perspex nameplate with black vinyl lettering 50mm high, fixed to wall system with four 60mm long wall plugs:</u></b>				
63	Arial font with letters "LIBRARY, COMPUTER & SCIENCE BLOCK" on 400 x 600mm high plate	No	1		
	<b><u>Clear perspex nameplate reverse engraved and enamelled in white lettering 25mm high to suit, twice countersunk holed for and tap screwed to timber or steel with chromium plated dome-headed self tapping screws:</u></b>				
64	Ditto, but with letters "STORE ROOM"	No	1		
	<b><u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC.</u></b>				
	<b><u>Parrot or other approved carpet pinning boards in aluminium frame with round plastic corners, pen tray and fixing component in accordance with the manufacturer's instructions:</u></b>				
65	Pinning board size 2400 x 1200mm high plugged	No	2		
	<b><u>Green chalkboard (non-magnetic) to comply with CKS-36-1980 or equivalent code of practice, complete with chalk rail as one unit, fixed in accordance with the manufacturer's instructions:</u></b>				
66	Chalkboard size 2400 x 1200mm high	No	2		
	<b><u>BLACK OUT BLINDS</u></b>				
	<b><u>Aluvert or other approved 25mm wide plain aluminium horizontal venetian blinds, including all cutting and fitting:</u></b>				
67	Blind for window opening size 1000 x 1248mm high	No	8		
	<b><u>STEEL CUPBOARDS</u></b>				
	<b><u>Approved standard epoxy powder coated finish cupboards, etc. fixed in position in accordance with the manufacturer's instructions:</u></b>				
68	Double door stationery cupboard size 1600 x 2125mm high, fitted complete with three shelves, security bar and brass padlock, six times holed for and fixing to wall system with and including four 10mm diameter expansion bolts 70mm long	No	1		
	<b>Carried to Collection</b>				
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 2 COMPUTER, LIBRARY & SCIENCE BLOCK				R

**STRUCTURAL STEELWORK**

**HOT DIP GALVANISED STEEL TRUSSES, ETC.**

**Hot dip galvanising:**

Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009) and SANS 32, unless otherwise described

**All steel to be Grade 350W**

**Light weight welded trusses with gussets, connection plates, including all welding, etc.:**

The complete roof structure shall be designed by a registered Structural Engineer and must be inspected by the former. A truss certificate, confirming the Engineer's approval of material workmanship, will be required.

Any costs relating to the required shop design drawings or truss certificate, shall be deemed to be included in the cost of the roof structure.

Shop design drawings will be required for perusal by the client's Structural Engineer, prior to manufacture or erection.

**Manufacture, supply and installation complete of galvanised mild steel (17,5 degree pitch) roof truss construction at 1200mm centres complete, including all necessary purlins, runners, bracing and cross bracing, rails for fascias, brander for ceilings and eaves soffits, etc.:**

69 Light gauge steel hipped roof structure assembly in one section, size 10,46 x 8,46m with two identical hip ends, all sections with 800mm eaves overhang including all purlins, bracing, etc. (measured on flat) (Computer, Library and Science Block)

Item

70 Allow for gangboarding in ceiling spaces to maximize accessibility in roof space

Item

**METALWORK**

**Note: Any specific method of fixing of these elements to the wall system needs to be allowed for by Tenderers in the respective items' prices, including any specific requirements for forming openings, bracing, strengthening, etc.**

Carried to Collection

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**AAAMSA specification:**

All aluminium door and window is to comply with the latest AAAMSA specification for architectural aluminium and glass products

**Hot dip galvanising:**

Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009) and SANS 32, unless otherwise described

**ALUMINIUM WINDOWS, DOORS, ETC.**

**White powder coated (ANP1052) aluminium windows glazed with NS 6,38mm thick Intruderprufe clear laminated safety glass (powder coated burglar proofing to all opening and fixed sections) as per latest AAAMSA specification for architectural aluminium and glass products:**

71	Window in four equal sections, two fixed sections on bottom and two top hung opening sections complete with restrictive stays on top, one transome and one mullion, size 1000 x 1248mm high (total of four horizontally fixed burglar bars) (W05)	No	8	
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**FRAMED AND WELDED SECURITY GATE ASSEMBLIES**

**Security gates complete including building in as required:**

72	Mild steel framed and welded single gate assembly formed of 50 x 50 x 2mm thick hollow section outer frame, mitred and welded at corners, filled in with 10 x 10mm tubular inserts welded to outer frame diagonally at 45 degrees at 100mm centres, including 120mm diameter opening in one leaf for and fitted with 12mm diameter sliding bolt with small handle in centre of one stile, opening formed of 10 x 10mm tubular framing shaped circularly and welded on, gate fitted with two heavy duty hinges (elsewhere measured) welded on and bolted to wall system, including setting up, adjusting and securing, size 1000x 2100mm high (G05)	No	1	
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73	Hot dip galvanised steel framed and welded single gate assembly formed of 50 x 50 x 2mm square hollow section outer frame, mitred and welded at corners, filled in with 10 x 10mm tubular inserts welded to outer frame diagonally at 45 degrees at 100mm centres, including 120mm diameter opening in one leaf for and fitted with 12mm diameter sliding bolt with small handle in centre of one stile, opening formed of 10 x 10mm tubular framing shaped circularly and welded on and bolted to wall system, including setting up, adjusting and securing, size 990 x 2132mm high (G05)	No	1	
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**HOT DIP GALVANISED STEEL COLUMNS AND BEAMS**

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<b><u>Purpose made roof supports, columns, etc.:</u></b>			
74	90 x 90 x 3mm Thick hollow section column 3085mm long, with and including 150 x 150 x 10mm thick baseplate twice holed for bolt (elsewhere measured), welded on to bottom end, and top end fitted with and including 150 x 3mm thick U shaped bracket 375mm long welded on, four times holed for bolt (elsewhere measured), including setting up in position, adjusting, etc.	No	5
<b><u>Sundries:</u></b>			
75	Hot dip galvanised bolts, etc.	kg	3
76	12mm Diameter hot dip galvanised rawlbolt 100mm long with nut and washer, including fixing to concrete	No	10
<b><u>HOT DIP GALVANISED WELDED GAS CAGES</u></b>			
<b><u>Gas cage assembly including securely bolting to wall system:</u></b>			
77	Framed and welded gas cage with all components to meet legislative requirements (to enclose 2 x 19kg gas bottles - supplied by others), size overall 1850 x 580 x 1440mm high	No	1
<b><u>PLASTERING</u></b>			
<b><u>SCREEDS</u></b>			
<b><u>3:1 Cement screed (SANS 2001) steel trowelled on concrete:</u></b>			
78	30mm Thick on floors	m2	61
<b><u>TAL Screedmaster or other approved self-levelling screed applied in accordance with the manufacturer's instructions:</u></b>			
79	3 - 8mm Thick on screed (elsewhere measured)	m2	61
<b><u>TILING</u></b>			
<b><u>FLOOR TILING</u></b>			
<b><u>200 x 100 x 50mm Thick brick paver in single row laid and epoxy grouted in and including recess in top edge of concrete slab as margin:</u></b>			
80	Margin as described	m	15
<b><u>PAINTWORK</u></b>			
<b>Carried to Collection</b>			
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**ON FIBRE CEMENT**

**Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one universal undercoat and two coats exterior quality acrylic emulsion paint on:**

81	Eaves soffits, etc.	m2	30
82	Fascias, etc.	m2	16

**ON GYPSUM PLASTERBOARD**

**Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one undercoat and two coats interior quality acrylic emulsion paint on:**

83	Ceilings and cornices	m2	62
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**ON STEEL**

**Prepare and apply one coat zinc chromate primer, one undercoat and two coats high gloss enamel paint on:**

84	Mild steel framed grille gate (both sides measured - on flat)	m2	5
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**ON WOOD**

**Two coats wood primer on:**

85	Backs of frames, linings, etc. not exceeding 300mm wide.	m	10
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**Prepare and apply three coats polyurethane matt varnish, including sanding down between all coats, on:**

86	Skirtings, cornices, rails, etc. not exceeding 300mm girth	m	33
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**Prepare and apply three coats Nova 16 Novaglow with a Kiaat finish, including sanding down between all coats, on:**

87	Doors (both sides measured)	m2	8
88	Frames, etc. not exceeding 300mm girth	m	10

**PLUMBING AND DRAINAGE (PROVISIONAL)**

**Sanitary Plumbing**

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<b><u>Unplasticised polyvinyl chloride (uPVC) pipes:</u></b>		
89	40mm Pipe fixed to walls, etc.	m 3
<b><u>Extra over uPVC pipes for:</u></b>		
90	40mm Bend	No 4
91	40mm Access bend	No 2
<b><u>Testing:</u></b>		
92	Allow for testing sanitary plumbing system	Item
<b><u>WATER SUPPLIES</u></b>		
<b><u>Internal water supplies:</u></b>		
<b><u>Polycop or other approved polypropylene pipes, including chasing into wall system if required:</u></b>		
93	22mm Pipe	m 7
<b><u>Extra over Polycop pipes for brass compression fittings:</u></b>		
94	22mm Pipe fittings	No 4
<b><u>Testing:</u></b>		
95	Allow for testing water supply system	Item
<b><u>SANITARY FITTINGS</u></b>		
<b><u>Supply and fix the following sanitary fittings, geysers and equipment together with loose ancillary fittings supplied therewith, including unloading, storing, unpacking, hoisting or lowering as required, fixing and building into position, cutting all mortices and chases as required for fixing and building in position, cutting, brackets, clamps, etc. and connecting up pipework and handing over in perfect working order at completion:</u></b>		
<b><u>Vaal or other approved:</u></b>		
96	Code 19-VK-001 white ceramic fireclay laboratory basin, size 435 x 335 x 180mm deep, including Code 8790Z0 acid resistant waste	No 2
<b><u>TAPS, VALVES, ETC.</u></b>		
<b>Carried to Collection</b>		
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<b><u>Labscheme or other approved:</u></b>				
97	Single bench water swivel swanneck cold water tap	No	2	
<b><u>WASTE UNIONS, TRAPS, ETC.</u></b>				
<b><u>Marley or other approved:</u></b>				
98	40 x 40mm Flexitrap butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	2	
<b><u>FIRE APPLIANCES, ETC.</u></b>				
<b><u>Fire hose reels, etc.:</u></b>				
99	4.5kg Dry chemical powder fire extinguisher fixed to wall system with wrot Meranti backboard, size 520 x 100 x 22mm thick, complete with hook	No	1	
<b>Carried to Collection</b>				
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**COLLECTION**

Total Brought Forward from Page No.

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Section No. 3

MODULAR PREFABRICATED CONSTRUCTION SYSTEM

Bill No. 2

COMPUTER, LIBRARY & SCIENCE BLOCK

Item No	Quantity	Rate	Amount
<p><b><u>SECTION No. 3: MODULAR PREFABRICATED CONSTRUCTION SYSTEM</u></b></p>			
<p><b><u>BILL No. 3: MULTI PURPOSE CENTRE BLOCK</u></b></p>			
<p>Tenderers are referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents</p>			
<p>Tenderers are to include all costs related to design, manufacture, supply and installation of their proposed Modular Prefabricated Construction System offered. The descriptions and items below are a guide to components within the required buildings and no claims for items not defined will be entertained. Tenderers must be active Agreement SA Certificate holders (valid and current Certificate of Registration to be supplied)</p>			
<p>Tenderers are to note that this school is in a coastal area and all elements pertaining to the school structure need to be designed accordingly</p>			
<p>Tenderers are to ensure that the Modular Prefabricated Construction System complies with the General Specification including certification requirements issued with this tender, no additional costs will be entertained to ensure compliance</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p>Tenderers are to measure and price for the design, manufacture, supply and installation of the Multi Purpose Centre Block complete as per the General Specification for Modular Prefabricated Construction Systems, included as part of this Tender Document and the Architect drawings and schedules attached hereto. Tenderers must measure and price all building items for the entire Multi Purpose Centre Block as described in SECTION No. 3 (this Section). The rates must include plant, overheads, attendance and mark up where required.</p>			
<p>No claim arising from brevity of descriptions of items fully described in this section will be entertained.</p>			
<p><b><u>Design, manufacture, deliver and construct Multi Purpose Centre Block complete (refer to Architect Drawing issued as part of this Tender Document)</u></b></p>			
<p><b><u>SUPERSTRUCTURE</u></b></p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 3 MULTI PURPOSE CENTRE BLOCK</p>		R	

<p><b><u>External and internal wall structures (Modular Prefabricated Construction System) (measured over all window, door and other openings), including suitable smooth paint finish to external and internal faces</u></b></p>				
<p><b><u>External Walls (including all intersections, ends, connections, framing fixed to concrete raft foundations, stiffener framing, insulation, etc.)</u></b></p>				
1	External wall 2770mm high	m	33	
<p><b><u>Internal Walls (including all intersections, ends, connections, framing fixed to raft foundations, stiffener framing, insulation, etc.)</u></b></p>				
2	Internal wall 2650mm high	m	6	
3	Beamfilling (measured gross to underside of roof sheeting) including dressing up to underside of corrugated roof sheeting	m2	22	
<p><b><u>Extra over internal and/or external wall structures (Modular Prefabricated Construction System) for forming the following openings, including all required supports, cutting, fitting, waste, ties, finishing off reveals, flat internal cills, sloping external cills, dampproofing, stiffener framing, thickening and strengthening wall system around openings as required, etc.:</u></b></p>				
4	Opening to suit window size 1000 x 1248mm high (W05)	No	8	
5	Opening to suit door frame size 984 x 2064mm high (D01, D02)	No	2	
<p><b><u>BRICKWORK SUNDRIES</u></b></p>				
<p><b><u>Air bricks built into wall system:</u></b></p>				
6	229 x 152mm Clay vermin proof air brick	No	4	
<p><b><u>BUILDERS' WORK RELATING TO ELECTRICAL AND MECHANICAL INSTALLATIONS, INCLUDING MAKING GOOD TO ALL FINISHES DISTURBED (PROVISIONAL)</u></b></p>				
<p><b><u>Forming holes through wall system including sealing around, etc.:</u></b></p>				
7	22 - 32mm Diameter hole for pipe	No	1	
8	40 - 50mm Diameter hole for pipe	No	1	
<p style="text-align: center;"><b>Carried to Collection</b></p>				
<p>Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 3 MULTI PURPOSE CENTRE BLOCK</p>				R

**WATERPROOFING**

**JOINT SEALANTS, ETC.**

**Clear UV resistant silicone sealant:**

9	In pointing externally around external window and door frames	m	41
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**ROOF COVERING, ETC.**

**PROFILED METAL SHEETING AND ACCESSORIES**

**0,8mm Thick Safintra Zinal AZ150 or other approved IBR profile aluminium-zinc roof sheeting and accessories with a Chromadek finish of colour to Architect's approval, fixed to steel purlins (elsewhere measured) at 1800mm centres, all in accordance with the manufacturer's instructions:**

10	Roof covering with pitch not exceeding 25 degrees	m2	125
11	Narrow or broad flute closers	m	48
12	Ridge capping to suit roof profile	m	2
13	Hip capping to suit roof profile	m	29

**RAINWATER DISPOSAL**

**0,9mm Thick Watertite or other approved seamless aluminium gutters and rainwater pipes with ColourTechG4 finish to Marble White colour, including fixing with heavy duty brackets in accordance with the manufacturer's instructions:**

14	140 x 150mm Ogee eaves gutter	m	44
15	Extra over gutter for outlet to suit 100 x 75mm rainwater pipe	No	2
16	Extra over gutter for stopped end	No	2
17	100 x 75mm Rainwater pipe	m	8
18	Extra over rainwater pipe for bend or shoe	No	6
19	Extra over rainwater pipe for eaves offset to 900mm projection	No	2
20	Extra over rainwater pipe for connecting to rainwater tank inlet (rainwater tank elsewhere measured)	No	2

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	<b><u>Sundries:</u></b>		
21	150mm Wide expanded aluminium mesh leaf guard fixed to gutter in accordance with the manufacturer's instructions	m	44
	<b><u>ROOF INSULATION</u></b>		
	<b><u>Envirotuff 203 or other approved double sided industrial grade insulation:</u></b>		
22	Laid taut over steel purlins at approximately 1800mm centres, fixed concurrent with roof covering, including galvanised steel straining wires, laps, etc.	m2	128
	<b><u>CARPENTRY AND JOINERY</u></b>		
	<b><u>EAVES, VERGES, ETC.</u></b>		
	<b><u>Pressed fibre cement:</u></b>		
23	12 x 225mm Fascia fixed vertically to and including required steel members at end of roof trusses (elsewhere measured) with brass screws, including H-profile PVC joint strips, caps, etc.	m	44
	<b><u>SKIRTINGS, RAILS, ETC.</u></b>		
	<b><u>Wrot Meranti:</u></b>		
24	32 x 50mm Cover strip	m	78
25	19 x 69mm Angle rounded dado rail	m	26
26	19 x 69mm Angle rounded skirting with 19mm quadrant bead	m	38
	<b><u>SOLID TIMBER DOORS</u></b>		
	<b><u>Wrot Meranti:</u></b>		
27	44mm Thick framed and braced battened door, formed of 44 x 107mm stiles and top rail, 44 x 219mm bottom rail, 22 x 69mm diagonal brace, with stiles, top and bottom rails once rebated for and filled in with 22 x 69mm tongued, grooved and V-jointed vertical boarding, with braces brass screwed to every board, size 920 x 2032mm high (D02)	No	1
	<b>Carried to Collection</b>		
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 3 MULTI PURPOSE CENTRE BLOCK		

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28	44mm Thick framed and braced battened door, formed of 44 x 107mm stiles and top rail, 44 x 219mm bottom rail, 22 x 69mm diagonal brace, with stiles, top and bottom rails once rebated for and filled in with 22 x 69mm tongued, grooved and V-jointed vertical boarding, with braces brass screwed to every board, with and including 32 x 69mm rebated and profiled weatherboard brass screwed on, size 920 x 2032mm high (D01)	No	1
<b><u>FRAMES, ETC.</u></b>			
<b><u>Wrot Meranti:</u></b>			
29	19mm Quadrant bead planted on	m	20
30	44 x 94mm Rebated frame securely fixed to wall system	m	10
<b><u>Sundries:</u></b>			
31	30 x 1,6mm Galvanised hoop iron cramp 600mm long, with one end fixed to wall system and other end screwed to timber frame	No	12
<b><u>JOINERY FITTINGS (PROVISIONAL)</u></b>			
The references in the descriptions are to the respective joinery details on the Architect's drawings attached to these Bills of Quantities for tender purposes.			
All timber shelving to be prepared and painted with three coats or other approved clear varnish.			
All joinery items describing doors and drawers below are to be inclusive of all furniture complete as described in the joinery details on the Architect's drawings attached to these Bills of Quantities.			
<b><u>Lockable cupboard:</u></b>			
32	Lockable storage cupboard consisting of 16mm thick Melamine carcass with and including 20mm thick laminated Pine shelving at 459mm centre spacing in five tiers and two doors, overall size 1577 x 437 x 2564mm high as per JD14	No	1
<b><u>Store room:</u></b>			
33	15mm Thick laminated shelving fixed to SHELCO or other approved heavy duty brackets with suitable fixing lugs at 350mm centres, shelving 343mm wide in three tiers as per JD11	m	3
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34	32mm Thick Formica or other approved countertop for worktop consisting of 16mm thick Melamine carcass, one cupboards with single door and one section with four drawers, overall size 2055 x 600 x 900mm high as per JD11	No	1	
35	32mm Thick Formica or other approved countertop for worktop consisting of 16mm thick Melamine carcass, two cupboards with double doors, one cupboard with single door, overall size 3350 x 600 x 900mm high as per JD11	No	1	
<b><u>Multi-purpose cupboard:</u></b>				
36	32mm Thick laminated Meranti countertop with bullnose edge finish with drop-in sink (elsewhere measured) and 16mm thick Melamine carcass consisting of two cupboards with double door and four drawers, overall size 2768 x 600 x 900mm high as per JD12	No	1	
<b><u>LOOSE SCHOOL FURNITURE (PROVISIONAL)</u></b>				
The references in the descriptions are to the respective types of loose furniture detailed on the Department of Basic Education Specifications (C5.5 School Furniture Specifications) attached to these Bills of Quantities for tender purposes				
The prices for loose furniture are to include for supply and delivery complete with profit and attendance. References to pages refer to above document.				
<b><u>MULTI-PURPOSE CENTRE</u></b>				
37	Stackable injection moulded chairs with steel frame - Grade 4 - 6 (Refer page 19)	No	40	
38	Double Primary stackable table - Grade 4 - 6 (Refer page 10)	No	20	
39	Teacher's upholstered chair without armrests (Refer page 25)	No	2	
40	Teacher's Classroom desk (Refer page 26)	No	1	
41	Saligna stationery cupboard with two doors and shelves (Refer page 36)	No	1	
<b><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></b>				
<b><u>NAILED UP CEILINGS</u></b>				
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	<b><u>6mm Thick pressed fibre cement ceiling boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, secured to steel branderling with screws/bolts at maximum 150mm centres:</u></b>		
42	Ceilings fixed not exceeding 1m below steel trusses at approximately 1200mm centres	m2	24
	<b><u>6mm Thick pressed fibre cement boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, 38mm wrot softwood quadrant along edges, ends, etc., secured to steel branderling with screws/bolts at maximum 150mm centres:</u></b>		
43	Eaves soffits (generally 800mm wide) fixed along two edges to steel branderling	m2	30
	<b><u>6.4mm Thick gypsum ceiling boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, secured to steel branderling with screws/bolts at maximum 150mm centres:</u></b>		
44	Ceilings fixed not exceeding 1m below steel trusses at approximately 1200mm centres	m2	61
45	Extra over ceiling for 600 x 600mm hinged trap door of 19 x 69mm wrot Meranti framing around, with two sawn softwood cross branders covered with ceiling board and fitted flush in opening	No	1
	<b><u>CORNICES</u></b>		
	<b><u>Gypsum cornices plugged to walls:</u></b>		
46	75mm Coved cornice	m	70
	<b><u>INSULATION</u></b>		
	<b><u>Mineral wool or other approved ceiling insulation:</u></b>		
47	100mm Thick insulation closely fitted and laid on top of branderling between steel members, etc.	m2	61
	<b><u>FLOOR COVERINGS</u></b>		
	<b><u>2.5mm Thick FloorworX Superflex or other approved fully flexible vinyl sheeting with welded joints in Fennel colour (Code MS164), laid in accordance with the manufacturer's specifications on self-levelling screed (elsewhere measured):</u></b>		
48	On floors	m2	61
	<b>Carried to Collection</b>		

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**POLISH, SEALERS, ETC.**

**Dust mop or vacuum the floor to remove loose soil and dust, scrub the floor using a solution of FloorworX Maintain diluted 1:10 with clean water with a rotary machine fitted with a blue pad, remove the residue immediately after scrubbing using a wet/dry vacuum, rinse with clean water using a mop and allow the floor to dry. Dry buff the floor using a rotary or high speed machine fitted with a white pad, apply FloorworX Spray Buff in a fine stream or mist onto the floor in front of a rotary machine fitted with a red pad and work in until dry and achieving a smooth surface and constant level of gloss:**

49	On vinyl sheeting to floors	m2	61
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**SUNDRIES**

50	30 x 3mm Aluminium dividing strip fixed in and including groove in floor	m	1
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**IRONMONGERY**

**Fixing of ironmongery**

Where applicable fixing of ironmongery are to include for any required fixing stainless steel screws, etc.

**Finishes to ironmongery**

Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin Bronze Lacquered; CH Chromium Plated; SC Satin Chromium Plated; SE Silver Enamelled; GE Grey Enamelled; AS Anodised Silver; AB Anodised Bronze; AG Anodised Gold; ABL Anodised Black; PB Polished Brass; PL Polished and Lacquered; PT Epoxy Coated and SD Sanded

**HINGES, BOLTS, ETC.**

**Dormakaba or other approved:**

51	DBB-SS-009 102 x 75 x 3mm Two ball bearing butt hinge	No	5
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**LOCKS**

**Dormakaba or other approved:**

52	DO36S SS Cylinder sashlock	No	2
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53	DDC106601 MK 66mm Five pin euro-profile cylinder grand master keyed	No	4
54	1450 00 55 ISEO 55mm Backset euro profile cylinder security lock	No	2
<b><u>HANDLES</u></b>			
<b><u>Dormakaba or other approved:</u></b>			
55	CB30 Cyl SC Lever handle set on plate with cylinder cutout	No	2
<b><u>DOOR STOPS, CABIN HOOKS, ETC.</u></b>			
<b><u>Dormakaba or other approved:</u></b>			
56	DDS-SS-017 Floor mounted door stop	No	1
<b><u>Halcast or other approved:</u></b>			
57	401SC Door stop and holder	No	1
<b><u>Howick or other approved:</u></b>			
58	H076 Heavy duty stainless steel spring clip	No	2
<b><u>Sundries</u></b>			
59	10mm Diameter steel dowel 100mm long in and including mortice in timber and concrete	No	4
<b><u>LETTERS, NAMEPLATES, ETC.</u></b>			
<u>Contractor to provide samples of nameplates for approval of the Architect</u>			
<b><u>Dormakaba or other approved:</u></b>			
60	DSS-146 FE Fire extinguisher sign	No	1
<b><u>5mm Thick clear perspex nameplate with black vinyl lettering 50mm high, fixed to wall system with four 60mm long wall plugs:</u></b>			
61	Arial font with letters "MULTI PURPOSE BLOCK" on 400 x 600mm high plate	No	1

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62	<p><b><u>Clear perspex nameplate reverse engraved and enamelled in white lettering 25mm high to suit, twice countersunk holed for and tap screwed to timber or steel with chromium plated dome-headed self tapping screws:</u></b></p> <p>Ditto, but with letters "STORE ROOM"</p>	No	1	
<p><b><u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC.</u></b></p>				
<p><b><u>Parrot or other approved carpet pinning boards in aluminium frame with round plastic corners, pen tray and fixing component in accordance with manufacturer's instructions:</u></b></p>				
63	Pinning board size 2400 x 1200mm high plugged	No	2	
<p><b><u>Green chalkboard (non-magnetic) to comply with CKS-36-1980 or equivalent code of practice, complete with chalk rail as one unit, fixed in accordance with the manufacturer's instructions:</u></b></p>				
64	Chalkboard size 2400 x 1200mm high	No	2	
<p><b><u>BLACK OUT BLINDS</u></b></p>				
<p><b><u>Aluvert or other approved 25mm wide plain aluminium horizontal venetian blinds, including all cutting and fitting:</u></b></p>				
65	Blind for window opening size 1000 x 1248mm high	No	8	
<p><b><u>STEEL CUPBOARDS</u></b></p>				
<p><b><u>Approved standard epoxy powder coated finish cupboards, etc. fixed in position in accordance with the manufacturer's instructions:</u></b></p>				
66	Steel double door stationery cupboard size 1600 x 2125mm high fitted complete with three shelves, security bar and brass padlock, six times holed for and fixing to modular wall system with and including 10mm diameter expansion bolts 70mm long	No	1	
<p><b><u>STRUCTURAL STEELWORK</u></b></p>				
<p><b><u>HOT DIP GALVANISED STEEL TRUSSES, ETC.</u></b></p>				
<p><b><u>Hot dip galvanising:</u></b></p>				
<p>Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009) and SANS 32, unless otherwise described</p>				
<p><b>Carried to Collection</b></p>				
<p>Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 3 MULTI PURPOSE CENTRE BLOCK</p>				<p>R</p>

**All steel to be Grade 350W**

**Light weight welded trusses with gussets, connection plates, including all welding, etc.:**

The complete roof structure shall be designed by a registered Structural Engineer and must be inspected by the former. A truss certificate, confirming the Engineer's approval of material workmanship, will be required.

Any costs relating to the required shop design drawings or truss certificate, shall be deemed to be included in the cost of the roof structure.

Shop design drawings will be required for perusal by the client's Structural Engineer, prior to manufacture or erection.

**Manufacture, supply and installation complete of galvanised mild steel (17,5 degree pitch) roof truss construction at 1200mm centres complete, including all necessary purlins, runners, bracing and cross bracing, rails for fascias, brandering for ceilings and eaves soffits, etc.:**

67 Light gauge steel hipped roof structure assembly in one section, size 10,46 x 8,46m with two identical hip ends, all sections with 800mm eaves overhang including all purlins, bracing, etc. (measured on flat) (Multi-Purpose Centre Block)

Item

68 Allow for gangboarding in ceiling spaces to maximize accessibility in roof space

Item

**METALWORK**

**Note: Any specific method of fixing of these elements to the wall system needs to be allowed for by Tenderers in the respective items' prices, including any specific requirements for forming openings, bracing, strengthening, etc.**

**AAAMSA specification:**

All aluminium door and window is to comply with the latest AAAMSA specification for architectural aluminium and glass products

**Hot dip galvanising:**

Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009) and SANS 32, unless otherwise described

**ALUMINIUM WINDOWS, DOORS, ETC.**

**Carried to Collection**

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 3  
MULTI PURPOSE CENTRE BLOCK



**White powder coated (ANP1052) aluminium windows glazed with NS 6,38mm thick Intruderprufe clear laminated safety glass (powder coated burglar proofing to all opening and fixed sections) as per latest AAAMSA specification for architectural aluminium and glass products:**

69	Window in four equal sections, two fixed sections on bottom and two top hung opening sections complete with restrictive stays on top, one transome and one mullion, size 1000 x 1248mm high (total of four horizontally fixed burglar bars) (W05)	No	8
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**FRAMED AND WELDED SECURITY GATE ASSEMBLIES**

**Security gates complete including building in as required:**

70	Mild steel framed and welded single gate assembly formed of 50 x 50 x 2mm thick hollow section outer frame, mitred and welded at corners, filled in with 10 x 10mm tubular inserts welded to outer frame diagonally at 45 degrees at 100mm centres, including 120mm diameter opening in one leaf for and fitted with 12mm diameter sliding bolt with small handle in centre of one stile, opening formed of 10 x 10mm tubular framing shaped circularly and welded on, gate fitted with two heavy duty hinges (elsewhere measured) welded on and bolted to wall system, including setting up, adjusting and securing, size 1000x 2100mm high (G05)	No	1
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71	Hot dip galvanised steel framed and welded single gate assembly formed of 50 x 50 x 2mm square hollow section outer frame, mitred and welded at corners, filled in with 10 x 10mm tubular inserts welded to outer frame diagonally at 45 degrees at 100mm centres, including 120mm diameter opening in one leaf for and fitted with 12mm diameter sliding bolt with small handle in centre of one stile, opening formed of 10 x 10mm tubular framing shaped circularly and welded on and bolted to wall system, including setting up, adjusting and securing, size 990 x 2132mm high (G05)	No	1
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**HOT DIP GALVANISED STEEL COLUMNS AND BEAMS**

**Purpose made roof supports, columns, etc.:**

72	90 x 90 x 3mm Thick hollow section column 3085mm long, with and including 150 x 150 x 10mm thick baseplate twice holed for bolt (elsewhere measured), welded on to bottom end, and top end fitted with and including 150 x 3mm thick U shaped bracket 375mm long welded on, four times holed for bolt (elsewhere measured), including setting up in position, adjusting, etc.	No	5
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**Sundries:**

73	Hot dip galvanised bolts, etc.	kg	3
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**Carried to Collection**

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 3  
MULTI PURPOSE CENTRE BLOCK

74	12mm Diameter hot dip galvanised rawlbolt 100mm long with nut and washer, including fixing to concrete	No	10
	<b><u>PLASTERING</u></b>		
	<b><u>SCREEDS</u></b>		
	<b><u>3:1 Cement screed (SANS 2001) steel trowelled on concrete:</u></b>		
75	30mm Thick on floors	m2	61
	<b><u>TAL Screedmaster or other approved self-levelling screed applied in accordance with the manufacturer's instructions:</u></b>		
76	3 - 8mm Thick on screed (elsewhere measured)	m2	61
	<b><u>TILING</u></b>		
	<b><u>WALL TILING</u></b>		
	<b><u>200 x 200 x 6,5mm Thick matt white glazed ceramic tiles fixed to wall system with approved tile adhesive, 3mm wide continuous joints in both directions, pointed with dark grey anti-fungicidal grout:</u></b>		
77	On walls in isolated panels, splashbacks, etc.	m2	1
	<b><u>FLOOR TILING</u></b>		
	<b><u>200 x 100 x 50mm Thick brick paver in single row laid and epoxy grouted in and including recess in top edge of concrete slab as margin:</u></b>		
78	Margin as described	m	15
	<b><u>PAINTWORK</u></b>		
	<b><u>ON FIBRE CEMENT</u></b>		
	<b><u>Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one universal undercoat and two coats exterior quality acrylic emulsion paint on:</u></b>		
79	Eaves soffits, etc.	m2	30
80	Fascias, etc.	m2	16

Carried to Collection

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 3  
MULTI PURPOSE CENTRE BLOCK

**ON GYPSUM PLASTERBOARD**

**Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one undercoat and two coats interior quality acrylic emulsion paint on:**

81 Ceilings and cornices m2 62

**ON STEEL**

**Prepare and apply one coat zinc chromate primer, one undercoat and two coats high gloss enamel paint on:**

82 Mild steel framed grille gate (both sides measured - on flat) m2 5

**ON WOOD**

**Two coats wood primer on:**

83 Backs of frames, linings, etc. not exceeding 300mm wide. m 10

**Prepare and apply three coats polyurethane matt varnish, including sanding down between all coats, on:**

84 Skirtings, cornices, rails, etc. not exceeding 300mm girth m 38

**Prepare and apply three coats Nova 16 Novaglow with a Kiaat finish, including sanding down between all coats, on:**

85 Doors (both sides measured) m2 8

86 Frames, etc. not exceeding 300mm girth m 10

**PLUMBING AND DRAINAGE (PROVISIONAL)**

**Sanitary Plumbing**

**Unplasticised polyvinyl chloride (uPVC) pipes:**

87 40mm Pipe fixed to walls, etc. m 2

**Extra over uPVC pipes for:**

88 40mm Bend No 2

89 40mm Access bend No 1

Carried to Collection

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
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MULTI PURPOSE CENTRE BLOCK



**Marley or other approved:**

96	32 x 40mm Flexitrap butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	1
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**Cobra Watertech or other approved:**

97	32mm Chromium plated 303-CP slotted basin waste union complete with plug only	No	1
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**FIRE APPLIANCES, ETC.**

**Fire hose reels, etc.:**

98	4,5kg Dry chemical powder fire extinguisher fixed to wall system with wrot Meranti backboard, size 520 x 100 x 22mm thick, complete with hook	No	1
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**Carried to Collection**

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 3  
MULTI PURPOSE CENTRE BLOCK

Section No. 3

Bill No. 3

MULTI PURPOSE CENTRE BLOCK

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

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**Carried Forward to Summary of Section No. 3**

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Section No. 3

MODULAR PREFABRICATED CONSTRUCTION SYSTEM

Bill No. 3

MULTI PURPOSE CENTRE BLOCK

Item No	Quantity	Rate	Amount
<p><b><u>SECTION No. 3: MODULAR PREFABRICATED CONSTRUCTION SYSTEM</u></b></p>			
<p><b><u>BILL No. 4: TWO CLASSROOM BLOCK (x2)</u></b></p>			
<p>Tenderers are referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents</p>			
<p>Tenderers are to include all costs related to design, manufacture, supply and installation of their proposed Modular Prefabricated Construction System offered. The descriptions and items below are a guide to components within the required buildings and no claims for items not defined will be entertained. Tenderers must be active Agreement SA Certificate holders (valid and current Certificate of Registration to be supplied)</p>			
<p>Tenderers are to note that this school is in a coastal area and all elements pertaining to the school structure need to be designed accordingly</p>			
<p>Tenderers are to ensure that the Modular Prefabricated Construction System complies with the General Specification including certification requirements issued with this tender, no additional costs will be entertained to ensure compliance</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p>Tenderers are to measure and price for the design, manufacture, supply and installation of the Two Classroom Block complete as per the General Specification for Modular Prefabricated Construction Systems, included as part of this Tender Document and the Architect drawings and schedules attached hereto. Tenderers must measure and price all building items for the entire Two Classroom Block as described in SECTION No. 3 (this Section). The rates must include plant, overheads, attendance and mark up where required.</p>			
<p>No claim arising from brevity of descriptions of items fully described in this section will be entertained.</p>			
<p><b><u>Design, manufacture, deliver and construct Two Classroom Block complete (refer to Architect Drawing issued as part of this Tender Document)</u></b></p>			
<p><b><u>SUPERSTRUCTURE</u></b></p>			
<p><b>Carried to Collection</b></p>		R	
<p>Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 4 TWO CLASSROOM BLOCK</p>			

**External and internal wall structures (Modular Prefabricated Construction System) (measured over all window, door and other openings), including suitable smooth paint finish to external and internal faces**

**External Walls (including all intersections, ends, connections, framing fixed to concrete raft foundations, stiffener framing, insulation, etc.)**

1	External wall 2770mm high	m	71
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**Internal Walls (including all intersections, ends, connections, framing fixed to raft foundations, stiffener framing, insulation, etc.)**

2	Internal wall 2650mm high	m	23
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3	Beamfilling (measured gross to underside of roof sheeting) including dressing up to underside of corrugated roof sheeting	m2	49
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**Gyproc or other approved fire resistant wall system with a fire rating of up to 2 hours (including all intersections, ends, connections, framing fixed to raft foundations, stiffener framing, insulation, etc.):**

4	Firewall (measured gross to underside of roof sheeting), including trimming to suit roof profile and soffit of corrugated roof sheeting	m2	52
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5	Ditto, but in roof space	m2	22
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**Extra over internal and/or external wall structures (Modular Prefabricated Construction System) for forming the following openings, including all required supports, cutting, fitting, waste, ties, finishing off reveals, flat internal cills, sloping external cills, dampproofing, stiffener framing, thickening and strengthening wall system around openings as required, etc.:**

6	Opening to suit window size 890 x 460mm high (W07)	No	4
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7	Opening to suit window size 1000 x 1248mm high (W05)	No	28
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8	Opening to suit door frame size 984 x 2064mm high (D01)	No	4
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Carried to Collection

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 4  
TWO CLASSROOM BLOCK



	<b><u>Extra over Gyproc fire resistant wall system for forming the following openings, including all required supports, cutting, fitting, waste, ties, finishing off reveals, flat internal cills, sloping external cills, dampproofing, stiffener framing, thickening and strengthening wall system around openings as required, etc.:</u></b>		
9	Opening to suit fire door and frame size 984 x 2064mm high (D10)	No	4
	<b><u>WATERPROOFING</u></b>		
	<b><u>JOINT SEALANTS, ETC.</u></b>		
	<b><u>Clear UV resistant silicone sealant:</u></b>		
10	In pointing externally around external window and door frames	m	154
	<b><u>ROOF COVERING, ETC.</u></b>		
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>		
	<b><u>0.8mm Thick Safintra Zincal AZ150 or other approved IBR profile aluminium-zinc roof sheeting and accessories with a Chromadek finish of colour to Architect's approval, fixed to steel purlins (elsewhere measured) at 1800mm centres, all in accordance with the manufacturer's instructions:</u></b>		
11	Roof covering with pitch not exceeding 25 degrees	m2	265
12	Narrow or broad flute closers	m	109
13	Ridge capping to suit roof profile	m	9
14	Hip capping to suit roof profile	m	51
	<b><u>RAINWATER DISPOSAL</u></b>		
	<b><u>0.9mm Thick Watertite or other approved seamless aluminium gutters and rainwater pipes with ColourTechG4 finish to Marble White colour, including fixing with heavy duty brackets in accordance with the manufacturer's instructions:</u></b>		
15	140 x 150mm Ogee eaves gutter	m	92
16	Extra over gutter for outlet to suit 100 x 75mm rainwater pipe	No	4
17	100 x 75mm Rainwater pipe	m	16
18	Extra over rainwater pipe for bend or shoe	No	12
	<b>Carried to Collection</b>		
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 4 TWO CLASSROOM BLOCK		

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19	Extra over rainwater pipe for eaves offset to 900mm projection	No	4
20	Extra over rainwater pipe for connecting to rainwater tank inlet (rainwater tank elsewhere measured)	No	2
<b><u>Sundries:</u></b>			
21	150mm Wide expanded aluminium mesh leaf guard fixed to gutter in accordance with the manufacturer's instructions	m	92
<b><u>ROOF INSULATION</u></b>			
<b><u>Envirotuff 203 or other approved double sided industrial grade insulation:</u></b>			
22	Laid taut over steel purlins at approximately 1800mm centres, fixed concurrent with roof covering, including galvanised steel straining wires, laps, etc.	m2	270
<b><u>CARPENTRY AND JOINERY</u></b>			
<b><u>EAVES, VERGES, ETC.</u></b>			
<b><u>Pressed fibre cement:</u></b>			
23	12 x 225mm Fascia fixed vertically to and including required steel members at end of roof trusses (elsewhere measured) with brass screws, including H-profile PVC joint strips, caps, etc.	m	92
<b><u>SKIRTINGS, RAILS, ETC.</u></b>			
<b><u>Wrot Meranti:</u></b>			
24	32 x 50mm Cover strip	m	164
25	19 x 69mm Angle rounded dado rail	m	73
26	19 x 69mm Angle rounded skirting with 19mm quadrant bead	m	104

**SOLID TIMBER DOORS**

Carried to Collection

Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 4  
TWO CLASSROOM BLOCK

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<b><u>Wrot Meranti:</u></b>		
27	44mm Thick framed and braced battened door, formed of 44 x 107mm stiles and top rail, 44 x 219mm bottom rail, 22 x 69mm diagonal brace, with stiles, top and bottom rails once rebated for and filled in with 22 x 69mm tongued, grooved and V-jointed vertical boarding, with braces brass screwed to every board, with and including 32 x 69mm rebated and profiled weatherboard brass screwed on, size 920 x 2032mm high (D01)	No 4

**FRAMES, ETC.**

<b><u>Wrot Meranti:</u></b>		
28	19mm Quadrant bead planted on	m 80
29	44 x 94mm Rebated frame securely fixed to wall system	m 40

**Sundries:**

30	30 x 1,6mm Galvanised hoop iron cramp 600mm long, with one end fixed to wall system and other end screwed to timber frame	No 48
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**JOINERY FITTINGS (PROVISIONAL)**

The references in the descriptions are to the respective joinery details on the Architect's drawings attached to these Bills of Quantities for tender purposes.

All timber shelving to be prepared and painted with three coats or other approved clear varnish.

All joinery items describing doors and drawers below are to be inclusive of all furniture complete as described in the joinery details on the Architect's drawings attached to these Bills of Quantities.

**Store room shelving:**

31	15mm Thick laminated shelving fixed to SHELCO or other approved heavy duty brackets with suitable fixing lugs at 350mm centres, shelving 380mm wide in six tiers as per JD1	m 22
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**LOOSE SCHOOL FURNITURE (PROVISIONAL)**

The references in the descriptions are to the respective types of loose furniture detailed on the Department of Basic Education Specifications (C5.5 School Furniture Specifications) attached to these Bills of Quantities for tender purposes

**Carried to Collection**

Section No. 3  
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The prices for loose furniture are to include for supply and delivery complete with profit and attendance. References to pages refer to above document.

**CLASSROOMS**

32	Double combination saligna Primary desk - Grade 1 - 3 (Refer page 6)	No	28
33	Double combination saligna Primary desk - Grade 4 - 6 (Refer page 4)	No	28
34	Teacher's Classroom desk (Refer page 26)	No	4
35	Teacher's upholstered chair without armrests (Refer page 25)	No	8

**CEILINGS, PARTITIONS AND ACCESS FLOORING**

**NAILED UP CEILINGS**

**6mm Thick pressed fibre cement ceiling boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, secured to steel brandering with screws/bolts at maximum 150mm centres:**

36	Ceilings fixed not exceeding 1m below steel trusses at approximately 1200mm centres	m2	59
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**6mm Thick pressed fibre cement boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, 38mm wrot softwood quadrant along edges, ends, etc., secured to steel brandering with screws/bolts at maximum 150mm centres:**

37	Eaves soffits (generally 800mm wide) fixed along two edges to steel brandering	m2	65
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**6,4mm Thick gypsum ceiling boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, secured to steel brandering with screws/bolts at maximum 150mm centres:**

38	Ceilings fixed not exceeding 1m below steel trusses at approximately 1200mm centres	m2	121
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39	Extra over ceiling for 600 x 600mm hinged trap door of 19 x 69mm wrot Meranti framing around, with two sawn softwood cross branders covered with ceiling board and fitted flush in opening	No	2
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**CORNICES**

**Carried to Collection**

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
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TWO CLASSROOM BLOCK

	<b><u>Gypsum cornices plugged to walls:</u></b>		
40	75mm Coved cornice	m	175
	<b><u>INSULATION</u></b>		
	<b><u>Mineral wool or other approved ceiling insulation:</u></b>		
41	100mm Thick insulation closely fitted and laid on top of bracing between steel members, etc.	m2	121
	<b><u>FLOOR COVERINGS</u></b>		
	<b><u>2.5mm Thick FloorworX Superflex or other approved fully flexible vinyl sheeting with welded joints in Prussian Blue colour (Code MS174), laid in accordance with the manufacturer's specifications on self-levelling screed (elsewhere measured):</u></b>		
42	On floors	m2	119
	<b><u>POLISH, SEALERS, ETC.</u></b>		
	<b><u>Dust mop or vacuum the floor to remove loose soil and dust, scrub the floor using a solution of FloorworX Maintain diluted 1:10 with clean water with a rotary machine fitted with a blue pad, remove the residue immediately after scrubbing using a wet/dry vacuum, rinse with clean water using a mop and allow the floor to dry. Dry buff the floor using a rotary or high speed machine fitted with a white pad, apply FloorworX Spray Buff in a fine stream or mist onto the floor in front of a rotary machine fitted with a red pad and work in until dry and achieving a smooth surface and constant level of gloss:</u></b>		
43	On vinyl sheeting to floors	m2	119
	<b><u>SUNDRIES</u></b>		
44	30 x 3mm Aluminium dividing strip fixed in and including groove in floor	m	3
	<b><u>IRONMONGERY</u></b>		
	<b><u>Fixing of ironmongery</u></b>		
	Where applicable fixing of ironmongery are to include for any required fixing stainless steel screws, etc.		
	<b>Carried to Collection</b>		

Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 4  
TWO CLASSROOM BLOCK

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**Finishes to ironmongery**

Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin Bronze Lacquered; CH Chromium Plated; SC Satin Chromium Plated; SE Silver Enamelled; GE Grey Enamelled; AS Anodised Silver; AB Anodised Bronze; AG Anodised Gold; ABL Anodised Black; PB Polished Brass; PL Polished and Lacquered; PT Epoxy Coated and SD Sanded

**HINGES, BOLTS, ETC.**

**Dormakaba or other approved:**

45	DBB-SS-009 102 x 75 x 3mm Two ball bearing butt hinge	No	12
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**LOCKS**

**Dormakaba or other approved:**

46	DCE-002 round cylinder escutcheon	Pairs	4
47	DO36S SS Cylinder sashlock	No	4
48	DO37D SS cylinder deadlock	No	4
49	DDC106601 MK 66mm Five pin euro-profile cylinder grand master keyed	No	12
50	1450 00 55 ISEO 55mm Backset euro profile cylinder security lock	No	4

**HANDLES**

**Dormakaba or other approved:**

51	CB30 Cyl SC Lever handle set on plate with cylinder cutout	No	4
52	DPH209 BTB 200 x 22mm straight tubular pull handle (fixing sets included)	Pairs	4

**DOOR STOPS, CABIN HOOKS, ETC.**

**Dormakaba or other approved:**

53	DDS-SS-017 Floor mounted door stop	No	4
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**Halcast or other approved:**

54	401SC Door stop and holder	No	4
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**Carried to Collection**

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 4  
TWO CLASSROOM BLOCK

55	166 Satin chrome (200mm) on brass cabin hook and eye with and including 100 x 100 x 75mm chamfered wrought Meranti block bolted securely	No	4		
	<b><u>DOOR CLOSERS</u></b>				
	<b><u>Dormakaba or other approved:</u></b>				
56	TS73V EN 2-4 regular arm non hold open door closer, including grade 430, 1,6mm thick suitably sized stainless steel plate holed, to accept door closer screws and fitted opposite side of door in same plane as doorcloser, including male/female screws	No	4		
	<b><u>Sundries</u></b>				
57	10mm Diameter steel dowel 100mm long in and including mortice in timber and concrete	No	8		
	<b><u>LETTERS, NAMEPLATES, ETC.</u></b>				
	<u>Contractor to provide samples of nameplates for approval of the Architect</u>				
	<b><u>Dormakaba or other approved:</u></b>				
58	DSS-146 FE Fire extinguisher sign	No	4		
	<b><u>5mm Thick clear perspex nameplate with black vinyl lettering 50mm high, fixed to wall system with four 60mm long wall plugs:</u></b>				
59	Arial font with letters "2 CLASSROOM BLOCK" on 400 x 600mm high plate	No	2		
	<b><u>Clear perspex nameplate reverse engraved and enamelled in white lettering 25mm high to suit, twice countersunk holed for and tap screwed to timber or steel with chromium plated dome-headed self tapping screws:</u></b>				
60	Ditto, but with letters "STORE ROOM"	No	4		
	<b><u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC.</u></b>				
	<b><u>Parrot or other approved carpet pinning boards in aluminium frame with round plastic corners, pen tray and fixing component in accordance with manufacturer's instructions:</u></b>				
61	Pinning board size 2400 x 1200mm high plugged	No	8		
	<b>Carried to Collection</b>				
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 4 TWO CLASSROOM BLOCK				R

	<b><u>Green chalkboard (non-magnetic) to comply with CKS-36-1980 or equivalent code of practice, complete with chalk rail as one unit, fixed in accordance with the manufacturer's instructions:</u></b>		
62	Chalkboard size 2400 x 1200mm high	No	8
	<b><u>BLACK OUT BLINDS</u></b>		
	<b><u>Aluvert or other approved 25mm wide plain aluminium horizontal venetian blinds, including all cutting and fitting:</u></b>		
63	Blind for window opening size 890 x 460mm high	No	4
64	Blind for window opening size 1000 x 1248mm high	No	28
	<b><u>STEEL CUPBOARDS</u></b>		
	<b><u>Approved standard epoxy powder coated finish cupboards, etc. fixed in position in accordance with the manufacturer's instructions:</u></b>		
65	Double door stationery cupboard size 1600 x 2125mm high, fitted complete with three shelves, security bar and brass padlock, six times holed for and fixing to wall system with and including four 10mm diameter expansion bolts 70mm long	No	2

**STRUCTURAL STEELWORK**

**HOT DIP GALVANISED STEEL TRUSSES, ETC.**

**Hot dip galvanising:**

Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009) and SANS 32, unless otherwise described

**All steel to be Grade 350W**

Carried to Collection

R

Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 4  
TWO CLASSROOM BLOCK



**Light weight welded trusses with gussets, connection plates, including all welding, etc.:**

The complete roof structure shall be designed by a registered Structural Engineer and must be inspected by the former. A truss certificate, confirming the Engineer's approval of material workmanship, will be required.

Any costs relating to the required shop design drawings or truss certificate, shall be deemed to be included in the cost of the roof structure.

Shop design drawings will be required for perusal by the client's Structural Engineer, prior to manufacture or erection.

**Manufacture, supply and installation complete of galvanised mild steel (17,5 degree pitch) roof truss construction at 1200mm centres complete, including all necessary purlins, runners, bracing and cross bracing, rails for fascias, branderling for ceilings and eaves soffits, etc.:**

66 Light gauge steel hipped roof structure assembly in one section, size 12,84 x 7,26m with two identical hip ends, all sections with 800mm eaves overhang including all purlins, bracing, etc. (measured on flat) (Two Classroom Block)

Item

67 Allow for gangboarding in ceiling spaces to maximize accessibility in roof space

Item

**METALWORK**

**Note: Any specific method of fixing of these elements to the wall system needs to be allowed for by Tenderers in the respective items' prices, including any specific requirements for forming openings, bracing, strengthening, etc.**

**AAAMSA specification:**

All aluminium door and window is to comply with the latest AAAMSA specification for architectural aluminium and glass products

**Hot dip galvanising:**

Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009) and SANS 32, unless otherwise described

**ALUMINIUM WINDOWS, DOORS, ETC.**

Carried to Collection

R

Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 4  
TWO CLASSROOM BLOCK

**White powder coated (ANP1052) aluminium windows glazed with NS 6,38mm thick Intruderprufe clear laminated safety glass (powder coated burglar proofing to all opening and fixed sections) as per latest AAAMSA specification for architectural aluminium and glass products:**

68	Window in two equal top hung opening sections complete with restrictive stays, one mullion, size 890 x 460mm high (total of two horizontally fixed burglar bars) (W07)	No	4
69	Window in four equal sections, two fixed sections on bottom and two top hung opening sections complete with restrictive stays on top, one transome and one mullion, size 1000 x 1248mm high (total of four horizontally fixed burglar bars) (W05)	No	28

**FIRE DOOR ASSEMBLIES**

**Bitcon Rubidor Class B or other approved fire door assembly, complete with and including 1,6mm thick single rebated frame (to suit 90 - 110mm thick wall), including setting up and building securely into Gyproc fire resistant wall system (opening elsewhere measured):**

70	Door size 900 x 2032mm high with veneered plywood both sides and all required fittings, complete with hinges, approved door stop bolted to wall system, all in accordance with the manufacturer's instructions (D10)	No	4
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**FRAMED AND WELDED SECURITY GATE ASSEMBLIES**

**Steel security gates complete including building in as required:**

71	Mild steel framed and welded single gate assembly formed of 50 x 50 x 2mm thick hollow section outer frame, mitred and welded at corners, filled in with 10 x 10mm tubular inserts welded to outer frame diagonally at 45 degrees at 100mm centres, including 120mm diameter opening in one leaf for and fitted with 12mm diameter sliding bolt with small handle in centre of one stile, opening formed of 10 x 10mm tubular framing shaped circularly and welded on, gate fitted with two heavy duty hinges (elsewhere measured) welded on and bolted to wall system, including setting up, adjusting and securing, size 1000 x 2100mm high (G05)	No	4
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**HOT DIP GALVANISED STEEL COLUMNS AND BEAMS**

Carried to Collection

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Section No. 3  
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	<b><u>Purpose made roof supports, columns, etc.:</u></b>		
72	90 x 90 x 3mm Thick hollow section column 3085mm long, with and including 150 x 150 x 10mm thick baseplate twice holed for bolt (elsewhere measured), welded on to bottom end, and top end fitted with and including 150 x 3mm thick U shaped bracket 375mm long welded on, four times holed for bolt (elsewhere measured), including setting up in position, adjusting, etc.	No	10
	<b><u>Sundries:</u></b>		
73	Hot dip galvanised bolts, etc.	kg	6
74	12mm Diameter hot dip galvanised rawlbolt 100mm long with nut and washer, including fixing to concrete	No	20
	<b><u>PLASTERING</u></b>		
	<b><u>SCREEDS</u></b>		
	<b><u>3:1 Cement screed (SANS 2001) steel trowelled on concrete:</u></b>		
75	30mm Thick on floors	m2	121
	<b><u>TAL Screedmaster or other approved self-levelling screed applied in accordance with the manufacturer's instructions:</u></b>		
76	3 - 8mm Thick on screed (elsewhere measured)	m2	119
	<b><u>FLOOR TILING</u></b>		
	<b><u>200 x 100 x 50mm Thick brick paver in single row laid and epoxy grouted in and including recess in top edge of concrete slab as margin:</u></b>		
77	Margin as described	m	34
	<b><u>PAINTWORK</u></b>		
	<b><u>ON FIBRE CEMENT</u></b>		
	<b><u>Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one universal undercoat and two coats exterior quality acrylic emulsion paint on:</u></b>		
78	Eaves soffits, etc.	m2	65
79	Fascias, etc.	m2	33
	<b>Carried to Collection</b>		
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 4 TWO CLASSROOM BLOCK		

R

**ON GYPSUM PLASTERBOARD**

**Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one undercoat and two coats interior quality acrylic emulsion paint on:**

80	Ceilings and cornices	m2	121
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**ON STEEL**

**Prepare and apply one coat zinc chromate primer, one undercoat and two coats high gloss enamel paint on:**

81	Mild steel frames not exceeding 300mm wide	m	20
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**ON WOOD**

**Two coats wood primer on:**

82	Backs of frames, linings, etc. not exceeding 300mm wide.	m	40
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**Prepare and apply three coats polyurethane matt varnish, including sanding down between all coats, on:**

83	Skirtings, cornices, rails, etc. not exceeding 300mm girth	m	177
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**Prepare and apply three coats Nova 16 Novaglow with a Kiaat finish, including sanding down between all coats, on:**

84	Doors (both sides measured)	m2	32
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85	Frames, cills, etc. not exceeding 300mm girth	m	40
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**FIRE APPLIANCES, ETC.**

**Fire hose reels, etc.:**

86	4,5kg Dry chemical powder fire extinguisher fixed to wall system with wrot Meranti backboard, size 520 x 100 x 22mm thick, complete with hook	No	4
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**Carried to Collection**

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 4  
TWO CLASSROOM BLOCK

Section No. 3

Bill No. 4

TWO CLASSROOM BLOCK

**COLLECTION**

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Section No. 3

MODULAR PREFABRICATED CONSTRUCTION SYSTEM

Bill No. 4

TWO CLASSROOM BLOCK



<p><b><u>External and internal wall structures (Modular Prefabricated Construction System) (measured over all window, door and other openings), including suitable smooth paint finish to external and internal faces</u></b></p>				
<p><b><u>External Walls (including all intersections, ends, connections, framing fixed to concrete raft foundations, stiffener framing, insulation, etc.)</u></b></p>				
1	External wall 2770mm high	m	24	
<p><b><u>Internal Walls (including all intersections, ends, connections, framing fixed to raft foundations, stiffener framing, insulation, etc.)</u></b></p>				
2	Internal wall 2650mm high	m	8	
3	Beamfilling (measured gross to underside of roof sheeting) including dressing up to underside of corrugated roof sheeting	m2	15	
<p><b><u>Extra over internal and/or external wall structures (Modular Prefabricated Construction System) for forming the following openings, including all required supports, cutting, fitting, waste, ties, finishing off reveals, flat internal cills, sloping external cills, dampproofing, stiffener framing, thickening and strengthening wall system around openings as required, etc.:</u></b></p>				
4	Opening to suit window size 1000 x 950mm high (W02)	No	1	
5	Opening to suit window size 1000 x 1248mm high (W05)	No	4	
6	Opening to suit window size 1485 x 1250mm high (W04)	No	1	
7	Opening to suit window size 1200 x 900mm high (W09)	No	1	
8	Opening to suit door frame size 964 x 2064mm high (D05)	No	1	
9	Opening to suit door frame size 984 x 2064mm high (D01 & D07)	No	2	
<p><b><u>BUILDERS' WORK RELATING TO ELECTRICAL AND MECHANICAL INSTALLATIONS, INCLUDING MAKING GOOD TO ALL FINISHES DISTURBED (PROVISIONAL)</u></b></p>				
<p><b><u>Forming holes through wall system including sealing around, etc.:</u></b></p>				
10	22 - 32mm Diameter hole for pipe	No	2	
<p><b>Carried to Collection</b></p>				
<p>Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 5 GRADE R CLASSROOM BLOCK</p>				R

11	40 - 50mm Diameter hole for pipe	No	2
	<b><u>WATERPROOFING</u></b>		
	<b><u>JOINT SEALANTS, ETC.</u></b>		
	<b><u>Clear UV resistant silicone sealant:</u></b>		
12	In pointing externally around external window and door frames	m	32
	<b><u>ROOF COVERING, ETC.</u></b>		
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>		
	<b><u>0,8mm Thick Safintra Zinal AZ150 or other approved IBR profile aluminium-zinc roof sheeting and accessories with a Chromadek finish of colour to Architect's approval, fixed to steel purlins (elsewhere measured) at 1800mm centres, all in accordance with the manufacturer's instructions:</u></b>		
13	Roof covering with pitch not exceeding 25 degrees	m2	82
14	Narrow or broad flute closers	m	42
15	Ridge capping to suit roof profile	m	2
16	Hip capping to suit roof profile	m	22
	<b><u>RAINWATER DISPOSAL</u></b>		
	<b><u>0,9mm Thick Watertite or other approved seamless aluminium gutters and rainwater pipes with ColourTechG4 finish to Marble White colour, including fixing with heavy duty brackets in accordance with the manufacturer's instructions:</u></b>		
17	140 x 150mm Ogee eaves gutter	m	36
18	Extra over gutter for angle	No	4
19	Extra over gutter for outlet to suit 100 x 75mm rainwater pipe	No	4
20	100 x 75mm Rainwater pipe	m	12
21	Extra over rainwater pipe for bend or shoe	No	4
22	Extra over rainwater pipe for eaves offset to 900mm projection	No	4

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 5  
GRADE R CLASSROOM BLOCK



	<b><u>Sundries:</u></b>				
23	150mm Wide expanded aluminium mesh leaf guard fixed to gutter in accordance with the manufacturer's instructions	m	36		
	<b><u>ROOF INSULATION</u></b>				
	<b><u>Envirotuff 203 or other approved double sided industrial grade insulation:</u></b>				
24	Laid taut over steel purlins at approximately 1800mm centres, fixed concurrent with roof covering, including galvanised steel straining wires, laps, etc.	m2	82		
	<b><u>CARPENTRY AND JOINERY</u></b>				
	<b><u>EAVES, VERGES, ETC.</u></b>				
	<b><u>Pressed fibre cement:</u></b>				
25	12 x 225mm Fascia fixed vertically to and including required steel members at end of roof trusses (elsewhere measured) with brass screws, including H-profile PVC joint strips, caps, etc.	m	36		
	<b><u>SKIRTINGS, RAILS, ETC.</u></b>				
	<b><u>Wrot Meranti:</u></b>				
26	32 x 50mm Cover strip	m	61		
27	19 x 69mm Angle rounded dado rail	m	18		
28	19 x 69mm Angle rounded skirting with 19mm quadrant bead	m	35		
29	22 x 150mm Cill with bullnose edging	m	1		
	<b><u>SOLID TIMBER DOORS</u></b>				
	<b><u>Wrot Meranti:</u></b>				
30	44mm Thick framed, braced and battened stable door, formed of 44 x 107mm stiles, top and centre rails, 44 x 219mm bottom rail, 22 x 69mm diagonal braces, with stiles, top, centre and bottom rails once rebated for and filled in with 22 x 69mm tongued, grooved and V-jointed vertical boarding, with braces brass screwed to every board, size 920 x 2032mm high (D07)	No	1		
	<b>Carried to Collection</b>				
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 5 GRADE R CLASSROOM BLOCK				R

31	44mm Thick framed and braced battened door, formed of 44 x 107mm stiles and top rail, 44 x 219mm bottom rail, 22 x 69mm diagonal brace, with stiles, top and bottom rails once rebated for and filled in with 22 x 69mm tongued, grooved and V-jointed vertical boarding, with braces brass screwed to every board, with and including 32 x 69mm rebated and profiled weatherboard brass screwed on, size 920 x 2032mm high (D01)	No	1
<b><u>FRAMES, ETC.</u></b>			
<b><u>Wrot Meranti:</u></b>			
32	19mm Quadrant bead planted on	m	20
33	44 x 94mm Rebated frame securely fixed to wall system	m	10
<b><u>Sundries:</u></b>			
34	30 x 1,6mm Galvanised hoop iron cramp 600mm long, with one end fixed to wall system and other end screwed to timber frame	No	12
<b><u>JOINERY FITTINGS (PROVISIONAL)</u></b>			
The references in the descriptions are to the respective joinery details on the Architect's drawings attached to these Bills of Quantities for tender purposes.			
All timber shelving to be prepared and painted with three coats or other approved clear varnish.			
All joinery items describing doors and drawers below are to be inclusive of all furniture complete as described in the joinery details on the Architect's drawings attached to these Bills of Quantities.			
<b><u>Storage cupboard:</u></b>			
35	Lockable storage cupboard consisting of 19mm thick composition board carcass with and including 19mm thick laminated Pine shelving at 330mm centre spacing in three ties and 44 thick semi-solid single door cut to size required, supported on two 38 x 38 x 3mm thick galvanised square tube triangular bracket and rawl bolted to brick wall, overall size 1010 x 450 x 1320mm high as per JD8	No	1
<b><u>Bag shelving:</u></b>			
36	32mm Thick Formica or other approved countertop for worktop consisting of 19mm thick gluelam laminated Pine carcass with fourteen bag shelving carcasses for pigeon holes, overall size 2132 x 300 x 720mm high as per detail JD7	No	2
<b>Carried to Collection</b>			

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Section No. 3  
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<b><u>Kitchen shelving:</u></b>				
37	15mm Thick wrot laminated softwood shelving fixed to and including SHELCO or other approved heavy duty brackets framing at 349mm centres, shelving 436mm wide in two tiers as per detail JD6	m	2	
<b><u>Kitchen cupboard:</u></b>				
38	32mm Thick laminated Meranti countertop with bullnose edge finish with drop-in sink (elsewhere measured) and 16mm thick Melamine carcass consisting of one cupboard with single door, one cupboard with double door and four drawers, overall size 2163 x 600 x 900mm high as per JD6	No	1	
<b><u>LOOSE SCHOOL FURNITURE (PROVISIONAL)</u></b>				
The references in the descriptions are to the respective types of loose furniture detailed on the Department of Basic Education Specifications (C5.5 School Furniture Specifications) attached to these Bills of Quantities for tender purposes				
The prices for loose furniture are to include for supply and delivery complete with profit and attendance. References to pages refer to above document.				
<b><u>GRADE R</u></b>				
<b><u>Classrooms:</u></b>				
39	Stackable injection moulded chairs with steel frame - Grade R (Refer page 18)	No	30	
40	Teacher's upholstered chair without armrests (Refer page 25)	No	1	
41	Stackable kindergarden table (Refer page 16)	No	2	
42	Teacher's Classroom desk (Refer page 26)	No	1	
<b><u>Sick Room:</u></b>				
43	Steel framed single bed with foam mattress (Refer page 30)	No	1	
<b><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></b>				
<b><u>NAILED UP CEILINGS</u></b>				
<b>Carried to Collection</b>				
Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 5 GRADE R CLASSROOM BLOCK				R

	<b><u>6mm Thick pressed fibre cement ceiling boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, secured to steel branderling with screws/bolts at maximum 150mm centres:</u></b>		
44	Ceilings fixed not exceeding 1m below steel trusses at approximately 1200mm centres	m2	14
	<b><u>6mm Thick pressed fibre cement boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, 38mm wrot softwood quadrant along edges, ends, etc., secured to steel branderling with screws/bolts at maximum 150mm centres:</u></b>		
45	Eaves soffits (generally 800mm wide) fixed along two edges to steel branderling	m2	23
	<b><u>6.4mm Thick gypsum ceiling boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, secured to branderling with drywall screws at maximum 150mm centres:</u></b>		
46	Ceilings fixed not exceeding 1m below steel trusses at approximately 1200mm centres	m2	36
47	Extra over ceiling for 600 x 600mm hinged trap door of 19 x 69mm wrot Meranti framing around, with two sawn softwood cross branders covered with ceiling board and fitted flush in opening	No	1
	<b><u>CORNICES</u></b>		
	<b><u>Gypsum cornices plugged to walls:</u></b>		
48	75mm Coved cornice	m	56
	<b><u>INSULATION</u></b>		
	<b><u>Mineral wool or other approved ceiling insulation:</u></b>		
49	100mm Thick insulation closely fitted and laid on top of branderling between steel members, etc.	m2	82
	<b><u>FLOOR COVERINGS</u></b>		
	<b><u>2.5mm Thick FloorworX Superflex or other approved fully flexible vinyl sheeting with welded joints in Prussian Blue colour (Code MS174), laid in accordance with the manufacturer's specifications on self-levelling screed (elsewhere measured):</u></b>		
50	On floors	m2	35
	<b>Carried to Collection</b>		

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Section No. 3  
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GRADE R CLASSROOM BLOCK

**POLISH, SEALERS, ETC.**

**Dust mop or vacuum the floor to remove loose soil and dust, scrub the floor using a solution of FloorworX Maintain diluted 1:10 with clean water with a rotary machine fitted with a blue pad, remove the residue immediately after scrubbing using a wet/dry vacuum, rinse with clean water using a mop and allow the floor to dry. Dry buff the floor using a rotary or high speed machine fitted with a white pad, apply FloorworX Spray Buff in a fine stream or mist onto the floor in front of a rotary machine fitted with a red pad and work in until dry and achieving a smooth surface and constant level of gloss:**

51	On vinyl sheeting to floors	m2	35
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**SUNDRIES**

52	30 x 3mm Aluminium dividing strip fixed in and including groove in floor	m	1
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**IRONMONGERY**

**Fixing of ironmongery**

Where applicable fixing of ironmongery are to include for any required fixing stainless steel screws, etc.

**Finishes to ironmongery**

Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin Bronze Lacquered; CH Chromium Plated; SC Satin Chromium Plated; SE Silver Enamelled; GE Grey Enamelled; AS Anodised Silver; AB Anodised Bronze; AG Anodised Gold; ABL Anodised Black; PB Polished Brass; PL Polished and Lacquered; PT Epoxy Coated and SD Sanded

**HINGES, BOLTS, ETC.**

**Dormakaba or other approved:**

53	DBB-SS-009 102 x 75 x 3mm Two ball bearing butt hinge	No	5
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**Alufab (Pty) Ltd. or other approved:**

54	1040 100mm Sinkless hinge with centre pin with standard alignment groove	No	3
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**LOCKS**

Carried to Collection

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<b><u>Dormakaba or other approved:</u></b>					
55	DO36S SS Cylinder sashlock	No	3		
56	DDC106601 MK 66mm Five pin euro-profile cylinder grand master keyed	No	4		
57	1450 00 55 ISEO 55mm Backset euro profile cylinder security lock	No	1		
<b><u>HANDLES</u></b>					
<b><u>Dormakaba or other approved:</u></b>					
58	CB30 Cyl SC Lever handle set on plate with cylinder cutout	No	3		
<b><u>DOOR STOPS, CABIN HOOKS, ETC.</u></b>					
<b><u>Dormakaba or other approved:</u></b>					
59	DDH-SS-020 wall buffer	No	1		
<b><u>Halcast or other approved:</u></b>					
60	401SC Door stop and holder	No	2		
61	166 Satin chrome (200mm) on brass cabin hook and eye with and including 100 x 100 x 75mm chamfered wrot Meranti block bolted securely	No	1		
<b><u>Sundries</u></b>					
62	10mm Diameter steel dowel 100mm long in and including mortice in timber and concrete	No	4		
63	75mm Brass barrel bolt and keep	No	1		
<b><u>LETTERS, NAMEPLATES, ETC.</u></b>					
<u>Contractor to provide samples of nameplates for approval of the Architect</u>					
<b><u>Dormakaba or other approved:</u></b>					
64	DSS-135 TC Tea cup sign	No	1		
65	DSS-146 FE Fire extinguisher sign	No	1		
<b>Carried to Collection</b>					
Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 5 GRADE R CLASSROOM BLOCK					R

	<b><u>5mm Thick clear perspex nameplate with black vinyl lettering 50mm high, fixed to wall system with four 60mm long wall plugs:</u></b>				
66	Arial font with letters "GRADE R CLASSROOM" on 400 x 600mm high plate	No	1		
	<b><u>Clear perspex nameplate reverse engraved and enamelled in white lettering 25mm high to suit, twice countersunk holed for and tap screwed to timber or steel with chromium plated dome-headed self tapping screws:</u></b>				
67	3mm Thick x 32mm high plate with letters "KITCHEN"	No	1		
68	Ditto, but with letters "SICK ROOM"	No	1		
	<b><u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC.</u></b>				
	<b><u>Parrot or other approved carpet pinning boards in aluminium frame with round plastic corners, pen tray and fixing component in accordance with manufacturer's instructions:</u></b>				
69	Pinning board size 2400 x 1200mm high plugged	No	2		
	<b><u>Green chalkboard (non-magnetic) to comply with CKS-36-1980 or equivalent code of practice, complete with chalk rail as one unit, fixed in accordance with the manufacturer's instructions:</u></b>				
70	Chalkboard size 2400 x 1200mm high	No	2		
	<b><u>Standard wall mounted white built-in type medicine cabinet complete fixed in accordance with manufacturer's instructions:</u></b>				
71	Medicine cabinet size 380 x 610mm high	No	1		
	<b><u>BLACK OUT BLINDS</u></b>				
	<b><u>Aluvert or other approved 25mm wide plain aluminium horizontal venetian blinds, including all cutting and fitting:</u></b>				
72	Blind for window opening size 1000 x 950mm high	No	1		
73	Blind for window opening size 1000 x 1248mm high	No	4		
74	Blind for window opening size 1485 x 1250mm high	No	1		
	<b><u>CURTAIN TRACKS</u></b>				
	<b>Carried to Collection</b>				
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 5 GRADE R CLASSROOM BLOCK				R

**Hospi-Track or other approved anodised aluminium bed curtain track:**

75	Bed curtain track suspended from ceiling including standard Poly-cotton washable dry-hung bed screen curtains and 12 gliders per metre	m	2
76	Extra for plugged end	No	2

**STEEL CUPBOARDS**

**Approved standard epoxy powder coated finish cupboards, etc. fixed in position in accordance with the manufacturer's instructions:**

77	Double door stationery cupboard size 1600 x 2125mm high, fitted complete with three shelves, security bar and brass padlock, six times holed for and fixing to wall system with and including four 10mm diameter expansion bolts 70mm long	No	1
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**STRUCTURAL STEELWORK**

**HOT DIP GALVANISED STEEL TRUSSES, ETC.**

**Hot dip galvanising:**

Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009) and SANS 32, unless otherwise described

**All steel to be Grade 350W**

**Light weight welded trusses with gussets, connection plates, including all welding, etc.:**

The complete roof structure shall be designed by a registered Structural Engineer and must be inspected by the former. A truss certificate, confirming the Engineer's approval of material workmanship, will be required.

Any costs relating to the required shop design drawings or truss certificate, shall be deemed to be included in the cost of the roof structure.

Shop design drawings will be required for perusal by the client's Structural Engineer, prior to manufacture or erection.

**Carried to Collection**

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
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GRADE R CLASSROOM BLOCK



**Manufacture, supply and installation complete of galvanised mild steel (17,5 degree pitch) roof truss construction at 1200mm centres complete, including all necessary purlins, runners, bracing and cross bracing, rails for fascias, brandering for ceilings and eaves soffits, etc.:**

78 Light gauge steel hipped roof structure assembly in one section, size 6,22 x 8,28m with two identical hip ends, all sections with 800mm eaves overhang including all purlins, bracing, etc. (measured on flat) (Grade R Classroom Block)

Item

79 Allow for gangboarding in ceiling spaces to maximize accessibility in roof space

Item

**METALWORK**

**Note: Any specific method of fixing of these elements to the wall system needs to be allowed for by Tenderers in the respective items' prices, including any specific requirements for forming openings, bracing, strengthening, etc.**

**AAAMSA specification:**

All aluminium door and window is to comply with the latest AAAMSA specification for architectural aluminium and glass products

**Hot dip galvanising:**

Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009) and SANS 32, unless otherwise described

**ALUMINIUM WINDOWS, DOORS, ETC.**

**White powder coated (ANP1052) aluminium windows glazed with NS 6,38mm thick Intruderprufe clear laminated safety glass (powder coated burglar proofing to all opening and fixed sections) as per latest AAAMSA specification for architectural aluminium and glass products:**

80 Window in one fixed section, size 1200 x 900mm (no burglar bars) (W09)

No

1

81 Window in four sections, two equal fixed sections on bottom and two equal top hung opening sections with restrictive stays on top, one transome and one mullion, size 1000 x 950mm high (total of three horizontally fixed burglar bars) (W02)

No

1

**Carried to Collection**

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Bill No. 5  
GRADE R CLASSROOM BLOCK

82	Window in four equal sections, two fixed sections on bottom and two top hung opening sections complete with restrictive stays on top, one transome and one mullion, size 1000 x 1248mm high (total of four horizontally fixed burglar bars) (W05)	No	4		
83	Window in six equal sections, two middle sections top hung opening with restrictive stays (one above the other in centre of window), total of four fixed sections (around two middle top hung opening sections, located two each side), one transome and two mullions, size 1485 x 1250mm high (total of four horizontally fixed burglar bars) (W04)	No	1		
	<b><u>White powder coated (ANP1052) aluminium doors glazed with NS 6,38mm thick Intruderprufe clear laminated safety glass, as per latest AAAMSA specification for architectural aluminium and glass products:</u></b>				
84	Single door and frame with one transome, all framed around in approved aluminium sections, fitted with three hinges to frame and specified lockset on backplate (elsewhere measured), door size overall 900 x 2032mm high (D05)	No	1		
	<b><u>FRAMED AND WELDED SECURITY GATE ASSEMBLIES</u></b>				
	<b><u>Security gates complete including building in as required:</u></b>				
85	Hot dip galvanised steel framed and welded single gate assembly formed of 50 x 50 x 2mm square hollow section outer frame, mitred and welded at corners, filled in with 10 x 10mm tubular inserts welded to outer frame diagonally at 45 degrees at 100mm centres, including 120mm diameter opening in one leaf for and fitted with 12mm diameter sliding bolt with small handle in centre of one stile, opening formed of 10 x 10mm tubular framing shaped circularly and welded on and bolted to wall system, including setting up, adjusting and securing, size 990 x 2132mm high (G05)	No	1		
	<b><u>HOT DIP GALVANISED STEEL COLUMNS AND BEAMS</u></b>				
	<b><u>Purpose made roof supports, columns, etc.:</u></b>				
86	90 x 90 x 3mm Thick hollow section column 3085mm long, with and including 150 x 150 x 10mm thick baseplate twice holed for bolt (elsewhere measured), welded on to bottom end, and top end fitted with and including 150 x 3mm thick U shaped bracket 375mm long welded on, four times holed for bolt (elsewhere measured), including setting up in position, adjusting, etc.	No	3		
	<b><u>Sundries:</u></b>				
87	Hot dip galvanised bolts, etc.	kg	2		
	<b>Carried to Collection</b>				
	Section No. 3 MODULAR PREFABRICATED CONSTRUCTION SYSTEM Bill No. 5 GRADE R CLASSROOM BLOCK				R

88	12mm Diameter hot dip galvanised rawlbolt 100mm long with nut and washer, including fixing to concrete	No	6
<b><u>HOT DIP GALVANISED SUNDRY WORKS</u></b>			
<b><u>Purpose made towel rail:</u></b>			
89	Towel hook assembly 1200mm long, consisting of 32 x 3mm thick flat section horizontal rail, drilled for and plugged and screwed to wall system at 200mm centres with 6mm diameter brass countersunk headed screws, rail fitted with and including 4mm diameter hooks 25mm long bent to semi circular shape and spaced at 60mm centres, with one end welded to rail, other end ground round and smooth	No	1
<b><u>PLASTERING</u></b>			
<b><u>SCREEDS</u></b>			
<b><u>3:1 Cement screed (SANS 2001) steel trowelled on concrete:</u></b>			
90	30mm Thick on floors	m2	36
<b><u>TAL Screedmaster or other approved self-levelling screed applied in accordance with the manufacturer's instructions:</u></b>			
91	3 - 8mm Thick on screed (elsewhere measured)	m2	35
<b><u>TILING</u></b>			
<b><u>WALL TILING</u></b>			
<b><u>200 x 200 x 6,5mm Thick matt white glazed ceramic tiles fixed to wall system with approved tile adhesive, 3mm wide continuous joints in both directions, pointed with dark grey anti-fungicidal grout:</u></b>			
92	On walls in isolated panels, splashbacks, etc.	m2	1
93	On narrow widths	m2	0.2
<b><u>FLOOR TILING</u></b>			
<b><u>200 x 100 x 50mm Thick brick paver in single row laid and epoxy grouted in and including recess in top edge of concrete slab as margin:</u></b>			
94	Margin as described	m	10

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 5  
GRADE R CLASSROOM BLOCK

**GLAZING**

**TOPS, SHELVES, DOORS, MIRRORS, ETC.**

**6mm Thick 'GG' quality polished silvered float glass copper backed mirror with polished edges holed for and fixed with round rose chromium plated mirror screws fixed to wall system:**

95	Mirror size 450 x 600mm high with four screws	No	1
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**PAINTWORK**

**ON FIBRE CEMENT**

**Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one universal undercoat and two coats exterior quality acrylic emulsion paint on:**

96	Eaves soffits, etc.	m2	23
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97	Fascias, etc.	m2	13
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**ON GYPSUM PLASTERBOARD**

**Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one undercoat and two coats interior quality acrylic emulsion paint on:**

98	Ceilings and cornices	m2	39
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**ON WOOD**

**Two coats wood primer on:**

99	Backs of frames, linings, etc. not exceeding 300mm wide.	m	10
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**Prepare and apply three coats polyurethane matt varnish, including sanding down between all coats, on:**

100	Skirtings, cornices, rails, etc. not exceeding 300mm girth	m	114
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**Prepare and apply three coats Nova 16 Novaglow with a Kiaat finish, including sanding down between all coats, on:**

101	Doors (both sides measured)	m2	8
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MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 5  
GRADE R CLASSROOM BLOCK

102	Frames, cills, etc. not exceeding 300mm girth	m	10
	<b><u>ON GALVANISED STEEL</u></b>		
	<b><u>Clean down galvanised surfaces thoroughly with galvanised iron cleaner, apply one coat calcium plumbate primer and two coats eggshell enamel paint on:</u></b>		
103	General surfaces of towel hook assembly, etc. not exceeding 300mm girth	m	1
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>		
	<b><u>Sanitary Plumbing</u></b>		
	<b><u>Unplasticised polyvinyl chloride (uPVC) pipes:</u></b>		
104	40mm Pipe fixed to walls, etc.	m	3
	<b><u>Extra over uPVC pipes for:</u></b>		
105	40mm Bend	No	3
106	40mm Access bend	No	2
	<b><u>Testing:</u></b>		
107	Allow for testing sanitary plumbing system		Item
	<b><u>WATER SUPPLIES</u></b>		
	<b><u>Internal water supplies:</u></b>		
	<b><u>Polycop or other approved polypropylene pipes, including chasing into brick walls if required:</u></b>		
108	22mm Pipe	m	7
	<b><u>Extra over Polycop pipes for brass compression fittings:</u></b>		
109	22mm Pipe fittings	No	4
	<b><u>Testing:</u></b>		
110	Allow for testing water supply system		Item
	<b><u>SANITARY FITTINGS</u></b>		

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Section No. 3  
MODULAR PREFABRICATED CONSTRUCTION SYSTEM  
Bill No. 5  
GRADE R CLASSROOM BLOCK

**Supply and fix the following sanitary fittings, geysers and equipment together with loose ancillary fittings supplied therewith, including unloading, storing, unpacking, hoisting or lowering as required, fixing and building into position, cutting all mortices and chases as required for fixing and building in position, cutting, brackets, clamps, etc. and connecting up pipework and handing over in perfect working order at completion:**

**Vaal or other approved:**

111	Hibiscus Ref 7023 white vitreous china wall hung basin, size 510 x 405mm with stopper to one taphole and fixed to wall	No	1		
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**Franke or other approved - grade 304 (18/10) polished stainless steel:**

112	Curveline Model CVN611 drop-in single end bowl sink, size 800 x 435mm, fixed to cupboard (cupboard by others) with securing clips and sealed with silicone adhesive along edges	No	1		
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**TAPS, VALVES, ETC.**

**Cobra Watertech or other approved:**

113	15mm Star 112-CP raised nose pillar tap	No	2		
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**WASTE UNIONS, TRAPS, ETC.**

**Marley or other approved:**

114	32 x 40mm Flexitrap butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	2		
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**Cobra Watertech or other approved:**

115	32mm Chromium plated 303-CP slotted basin waste union complete with plug only	No	2		
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**FIRE APPLIANCES, ETC.**

**Fire hose reels, etc.:**

116	4,5kg Dry chemical powder fire extinguisher fixed to wall system with wrot Meranti backboard, size 520 x 100 x 22mm thick, complete with hook	No	1		
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GRADE R CLASSROOM BLOCK

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MODULAR PREFABRICATED CONSTRUCTION SYSTEM

Bill No. 5

GRADE R CLASSROOM BLOCK

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1	ADMINISTRATION & NUTRITION BLOCK	68	
2	COMPUTER, LIBRARY & SCIENCE BLOCK	85	
3	MULTI PURPOSE CENTRE BLOCK	102	
4	TWO CLASSROOM BLOCK	117	
5	GRADE R CLASSROOM BLOCK	135	
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**Soil insecticide in accordance with SANS 5859 (compliance certificate will be required after completion):**

14	Under floors, etc. including forming and poisoning shallow furrows against foundation walls, etc. filling in furrows and ramming	m2	121
15	To bottoms and sides of trenches, etc.	m2	193

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Section No. 4  
VIP AND GRADE R TOILETS  
Bill No. 1  
EARTHWORKS (PROVISIONAL)

Section No. 4

Bill No. 1

EARTHWORKS (PROVISIONAL)

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Section No. 4

VIP AND GRADE R TOILETS

Bill No. 1

EARTHWORKS (PROVISIONAL)

Item No	Unit	Quantity	Rate	Amount
<p><b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b></p>				
<p><b><u>BILL No. 2: CONCRETE, FORMWORK &amp; REINFORCEMENT</u></b></p>				
<p>The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents</p>				
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>				
<p><b><u>Concrete</u></b></p>				
<p>All concrete work to be carried out in accordance with SABS 1200G</p>				
<p><b><u>Cost of tests</u></b></p>				
<p>The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Principal Agent (test cubes are measured separately)</p>				
<p><b><u>Formwork</u></b></p>				
<p>Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>				
<p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself</p>				
<p>Formwork to soffits of solid slabs, etc. shall be deemed to be slabs not exceeding 250mm thick unless otherwise described</p>				
<p>Formwork to sides of bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the Engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"</p>				
<p><b>Carried to Collection</b></p>				
<p>Section No. 4 VIP AND GRADE R TOILETS Bill No. 2 CONCRETE, FORMWORK &amp; REINFORCEMENT</p>				
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Degree of accuracy: Accuracy II as SABS 1200G

**Reinforcement**

Reinforcement to include 30MPa concrete cover blocks to ensure correct cover to reinforcing

**Raft foundation procedure and acceptance criteria**

The purpose of the procedures and requirements below are to reduce the risk to both the Client and the Contractor. It ensures that the completed foundations are accurately constructed within specifications with the minimum waste of materials and time.

The implications of the requirements must be understood before work commences. Contact the Engineer if any clarifications are required.

1. Protection of excavations

The Contractor must allow in his pricing for the protection of excavations for raft foundations. Caving of edges of ground beam excavations will lead to wastage of concrete with substantial cost implications to the Contractor.

Various methods can be adopted by the Contractor to protect against caving in. The following are possible measures that can be considered:

- Laying down of scaffold planks on edges of trenches for ground beams.
- Cement stabilizing the 150mm gravel layer under the floor slab to limit caving in of edges.

The Contractor must also be aware of the installation of insulation materials under the reinforced slabs and to the sides of ground beams. These insulation boards are fragile and care must be taken during fixing of reinforcing and placing of concrete. It may require the provision of gangplanks over work areas during construction.

Regardless of the construction methods and protection measures adopted, it will be deemed to be included in the tendered rates.

2. Earthworks Platforms

Before the commencement of the excavations for the raft foundation, the following must be complied with:

- The position and level of the platform must be surveyed and confirmed by a competent registered land surveyor or engineering surveyor in writing to the Engineer.
- Positions and levels of platform must be in accordance with

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SANS 2001-BE1: 2008 Earthworks General Table 1, Degree of Accuracy I, subject to the further tolerances below.

- Final Platform levels under raft foundations must be within the following vertical tolerances:
  - o Permissible Deviation from design level in any position = + 5mm and minus 20mm.
  - o Permissible Deviation under 3m straight edge = 15mm
- The quality of the fill material used must be confirmed in writing to the Engineer.
- Compaction test must prove that compaction specifications have been reached.
- The surface of the platform must be uniform and neatly trimmed with no loose material or silt.

Excavations for ground beams may only commence when all of the above has been complied with and the Engineer has given written consent for excavations to commence.

3. Raft foundation Construction.

The Contractor must have sufficient shuttering on site to shutter the complete section of the raft foundation between the expansion joints shown on the drawings. The shuttering must be sturdy and properly anchored to prevent any movement during placing of concrete. Makeshift shuttering will not be allowed.

Before any inspection by the Engineer is requested by the Contractor, the following must be complied with:

- All shuttering must be fixed in final position.
- The quality of the earthworks below must have been confirmed in writing (density, material quality and position)
- A calibrated laser level that will be used during the placing of the concrete must be available on site.
- The positions of shutters must be checked and confirmed by measuring with a calibrated steel tape by a competent person and confirmed in writing that the check has been done.
- All reinforcing must be securely fixed in correct positions and cover blocks must be provided to ensure correct cover.
- Dampcourse and/or insulation boards must be in final position and all holes patched.

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CONCRETE, FORMWORK & REINFORCEMENT

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- All dirt and loose material must be removed.
- All services to be cast into the raft foundation must be in position and approved by the Architect or Electrical Engineer.

The relevant documentation and written confirmation (quality control check sheet, photographic record, etc.) must be in possession of the Engineer before a request for an inspection can be lodged. Notice of at least 48 hours falling within a work week must be given.

After the placing of concrete and finishing of the floor surface, an approved curing compound must be applied to the finished floor surface.

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**10MPa/19mm Concrete:**

1 Blinding under foundation beams (Provisional)

m3 1

**REINFORCED CONCRETE**

**25MPa/19mm Concrete:**

2 Slabs including beams and inverted beams

m3 1

**30MPa/19mm Concrete cast against excavated surfaces:**

3 Foundation beams

m3 12

**30MPa/19mm Concrete:**

4 Slabs

m3 7

5 Raft slabs

m3 11

**30MPa/19mm Concrete with 4kg Penetron admixture per m3:**

6 Surface beds

m3 9

**CONCRETE TESTS**

**Test blocks:**

7 Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional)

No 9

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**CONCRETE SUNDRIES**

**Finishing top surfaces of concrete with broom/brush finish:**

8	Surface beds, etc.	m2	107
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**Finishing top surfaces of concrete smooth with a wood float:**

9	Surface beds, slabs, etc. to falls	m2	46
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**ROUGH FORMWORK (DEGREE OF ACCURACY III)**

**Rough formwork to sides:**

10	Foundation beams	m2	36
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11	Inverted beams above concrete	m2	12
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12	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	85
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13	Extra over formwork to sides of foundation beams for boxing out nib 170mm projection x 240mm high	m	40
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**Permanent rough formwork to sides:**

14	Foundation beams	m2	28
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**Permanent rough formwork to soffits:**

15	Soffits of slabs propping up exceeding 1,5m not exceeding 3,5m high above bearing level	m2	41
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**Rough formwork to form:**

16	Opening exceeding 1m and not exceeding 2m girth through slab not exceeding 300mm thick	No	8
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17	150mm Diameter opening through 170mm thick slab	No	15
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**Sundries:**

18	16mm Diameter x 260mm long dowel chemical anchored to pit wall including drilling into brick wall with concrete infill	No	68
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**MOVEMENT JOINTS, ETC.**

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<b><u>Two layers of 0.6mm thick galvanised sheeting with grease in between, in slip joint between concrete and brick surfaces including cement mortar bed:</u></b>			
19	Slip joint not exceeding 300mm wide	m	143
<b><u>KuniSeal C-31 concrete joint waterproofing between horizontal concrete and brick surfaces:</u></b>			
20	30mm Thick not exceeding 300mm wide	m	49
<b><u>STEEL REINFORCEMENT (PROVISIONAL)</u></b>			
<b><u>Mild steel reinforcement to structural concrete work:</u></b>			
21	10mm Diameter bars	t	0.10
<b><u>High tensile steel reinforcement to structural concrete work:</u></b>			
22	25mm Diameter bars	t	0.47
23	20mm Diameter bars	t	0.29
24	16mm Diameter bars	t	3.92
25	12mm Diameter bars	t	0.30
26	10mm Diameter bars	t	2.27
<b><u>Fabric reinforcement:</u></b>			
27	Type 245 fabric reinforcement in concrete surface beds, etc.	m2	46
28	Type 666 fabric reinforcement in cavity of walls, etc.	m2	67

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Section No. 4

Bill No. 2

CONCRETE, FORMWORK & REINFORCEMENT

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Section No. 4

VIP AND GRADE R TOILETS

Bill No. 2

CONCRETE, FORMWORK & REINFORCEMENT

Item No	<b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b>	Unit	Quantity	Rate	Amount
	<b><u>BILL No. 3: MASONRY</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u></b>				
	<b><u>Brickwork of NFX bricks (14MPa nominal compressive strength) in Class II mortar:</u></b>				
1	Half brick lining shot fixed to concrete	m2	20		
2	One brick wall	m2	7		
3	370mm Hollow wall in two half brick skins, the two skins tied together with and including galvanised wire ties with 100mm cavity filled in with and including reinforced concrete (20MPa/19mm with 4kg Penetron admixture per m3) (reinforcement elsewhere measured)	m2	67		
	<b><u>BRICKWORK IN SUPERSTRUCTURE</u></b>				
	<b><u>Brickwork of NFP bricks in Class II mortar:</u></b>				
4	Half brick wall	m2	92		
5	Half brick wall in beamfilling	m2	13		
6	One brick wall	m2	9		
7	One brick wall in two half brick skins tied together with and including galvanised wire ties	m2	174		
	<b><u>BRICKWORK SUNDRIES</u></b>				
8	Closing 50mm cavity of hollow wall horizontally with one course of brickwork	m	19		
9	Closing 50mm cavity of hollow wall vertically with brickwork half brick wide	m	37		
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Item No	<b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b>	Unit	Quantity	Rate	Amount
	<b><u>BILL No. 4: WATERPROOFING</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>				
	<b><u>One layer of 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:</u></b>				
1	Under rafts and foundation beams	m2	134		
2	In horizontal and vertical surfaces of pit foundation (Provisional)	m2	169		
	<b><u>One layer of 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B):</u></b>				
3	In walls, under cills, etc.	m2	32		
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Item No	<b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b>	Unit	Quantity	Rate	Amount
	<b><u>BILL No. 5: ROOF COVERING, ETC.</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>				
	<b><u>0.8mm Thick Safintra Zinal AZ150 or other approved IBR profile aluminium-zinc roof sheeting and accessories with a Chromadek finish of colour to Architect's approval, fixed to timber purlins (elsewhere measured) at 1050mm centres, all in accordance with the manufacturer's instructions:</u></b>				
1	Roof covering with pitch not exceeding 25 degrees	m2	146		
2	Narrow or broad flute closers	m	109		
3	Ridge capping to suit roof profile	m	55		
4	Flashing around 150mm diameter extraction pipe	No	15		
	<b><u>RAINWATER DISPOSAL</u></b>				
	<b><u>0.9mm Thick Watertite or other approved seamless aluminium gutters and rainwater pipes with ColourTechG4 finish to Marble White colour, including fixing with heavy duty brackets in accordance with the manufacturer's instructions:</u></b>				
5	140 x 150mm Ogee eaves gutter	m	55		
6	Extra over gutter for stopped end	No	12		
7	Extra over gutter for outlet to suit 100 x 75mm rainwater pipe	No	6		
8	100 x 75mm Rainwater pipe complete with all brackets, etc.	m	13		
9	Extra over rainwater pipe for bend or shoe	No	12		
	<b><u>Sundries:</u></b>				
10	150mm Wide expanded aluminium mesh leaf guard fixed to gutter in accordance with the manufacturer's instructions	m	55		
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	Section No. 4 VIP AND GRADE R TOILETS Bill No. 5 ROOF COVERINGS, ETC.				
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**ROOF INSULATION**

**Envirotuff 203 or other approved double sided industrial grade insulation:**

11 Laid taut under purlins at approximately 1050mm centres, fixed concurrent with roof covering, including galvanised steel straining wires, laps, etc.

m2

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ROOF COVERINGS, ETC.

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	<b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b>				
	<b><u>BILL No. 6: CARPENTRY &amp; JOINERY</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	Prefabricated trusses shall be fabricated in a factory by a truss fabricator who has been awarded a Certificate of Competence by the Institute of Timber Construction and who is approved by the Principal Agent				
	All trusses shall be designed by a registered Professional Engineer in accordance with SABS Code of Practice for Design of Timber Structures				
	The complete structure shall be inspected by the truss designer to ensure that the manufacture and erection details have been complied with				
	Any costs relating to the required truss certificate, shall be deemed to be included in the trusses cost				
	<b><u>PREFABRICATED ROOF TRUSSES, ETC.</u></b>				
	<b><u>Prefabricated timber (18 degree pitch) roof truss construction at 1200mm centres complete, including 50 x 76mm sawn softwood purlins at 1050mm centres (with and including fixing to rafters with hurricane clips), runners, bracing, cleats, etc. supplied and fixed complete:</u></b>				
1	Roof construction of double pitched roof with two gable ends, 650mm eaves and 300mm gable overhangs size 4,55 x 3,55 x 0,90m high	No	1		
2	Ditto size 8,91 x 3,55 x 0,90m high	No	1		
3	Ditto size 12,04 x 3,55 x 0,90m high	No	1		
	<b><u>Sawn softwood:</u></b>				
4	38 x 114mm Wall plate	m	50		
5	38 x 228mm Gangboarding (Provisional)	m	17		
	<b>Carried to Collection</b>				R
	Section No. 4 VIP AND GRADE R TOILETS Bill No. 6 CARPENTRY & JOINERY				

**EAVES, VERGES, ETC.**

**Sawn softwood:**

6	38 x 38mm Batten nailed to rafter ends	m	55
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**6mm Thick pressed fibre cement boarding with and including 32 x 10mm wrot Meranti coverstrips to joints, timber quadrant (elsewhere measured) along edges, ends, etc., fixed with drywall screws to brandering, etc.:**

7	Verge soffit lining 300mm wide with and including including 38 x 50mm sawn softwood brandering along edges and at 450mm centres across sheets	m2	9
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8	Sloping eaves soffit lining 650mm wide with and including 38 x 50mm sawn softwood brandering along inner, middle and outer edges, nailed to trusses	m2	35
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**Marley or other approved uPVC fascias or barge boards:**

9	225mm Fascia screwed vertically to and including 38 x 50mm wrot softwood runners, fixed with and including 114mm vertical cleats to side of roof trusses (elsewhere measured) with brass screws, including H-profile PVC joint strips, caps, etc.	m	55
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10	225mm L-shaped barge board screwed vertically to and including 38 x 50mm wrot softwood runners, including H-profile PVC joint strips, caps, etc.	m	30
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**Wrot Meranti:**

11	19mm Quadrant bead planted on	m	169
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**SKIRTINGS, RAILS, ETC.**

**Wrot softwood:**

12	32 x 44mm Cornice	m	85
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**DOORS, ETC.**

**Semi solid hollowcore flush doors with commercial veneer suitable for painting both sides and hardwood edge strips all round, hung to timber:**

13	40mm Thick door size 790 x 1900mm high	No	11
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Carried to Collection

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VIP AND GRADE R TOILETS  
Bill No. 6  
CARPENTRY & JOINERY

<b><u>Wrot Meranti:</u></b>				
14	44mm Thick framed, ledged, braced and battened door, formed of 44 x 107mm stiles and top rail, 44 x 222mm bottom rail and 22 x 69mm diagonal brace, with stiles, top and bottom rails once rebated for and filled in with 22 x 69mm tongued, grooved and V-jointed vertical boarding, size 813 x 900mm high	No	3	
15	44mm Thick framed, ledged, braced and battened door, formed of 44 x 107mm stiles and top rail, 22 x 107mm middle ledge, 44 x 222mm bottom rail and 22 x 69mm diagonal braces, with stiles, top and bottom rails once rebated for and filled in with 22 x 69mm tongued, grooved and V-jointed vertical boarding, with braces brass screwed to every board, with and including 32 x 69mm rebated and profiled weatherboard brass screwed on, size 920 x 2032mm high	No	6	
<b><u>FRAMED FRAMES, ETC.</u></b>				
<b><u>Wrot Meranti:</u></b>				
16	44 x 94mm Rebated frame plugged to wall	m	95	
<b>Carried to Collection</b>				
Section No. 4 VIP AND GRADE R TOILETS Bill No. 6 CARPENTRY & JOINERY				R

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Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b>				
	<b><u>BILL No. 7: CEILINGS, PARTITIONS &amp; ACCESS FLOORING</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>NAILED UP CEILINGS</u></b>				
	<b><u>6mm Thick pressed fibre cement plain ceiling boarding with 32 x 6mm wrot Meranti cover strips, fixed with drywall screws to branderling, etc.:</u></b>				
1	Ceiling including 38 x 50mm sawn softwood branderling at 400mm centres with cross branderling at 400mm centres and at joints, ends of sheets and at light fittings, etc.	m2	74		
2	Extra over ceiling for 600 x 600mm hinged trap door of 19 x 69mm wrot Meranti framing, with two sawn softwood cross branders covered with ceiling board and fitted flush in opening	No	3		
	<b><u>INSULATION</u></b>				
	<b><u>Mineral wool or other approved ceiling insulation:</u></b>				
3	100mm Thick insulation closely fitted and laid on top of branderling between roof timbers, etc.	m2	74		
	<b>Carried Forward to Summary of Section No. 4</b>				
	Section No. 4 VIP AND GRADE R TOILETS Bill No. 7 CEILINGS, PARTITIONS & ACCESS FLOORING				
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Item No	SECTION No. 4: VIP AND GRADE R TOILETS	Unit	Quantity	Rate	Amount
	<b><u>BILL No. 8: FLOOR COVERINGS, PLASTIC LININGS, ETC.</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>FLOOR COVERINGS</u></b>				
	<b><u>FloorWorx White PVC Extruda code MCB100 or other approved skirting fixed to floors complete:</u></b>				
1	100mm High skirting to floors	m	85		
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	Section No. 4 VIP AND GRADE R TOILETS Bill No. 8 FLOOR COVERINGS, PLASTIC LININGS, ETC.				

Item No	<b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b>	Unit	Quantity	Rate	Amount
	<b><u>BILL No. 9: IRONMONGERY</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>HINGES, BOLTS, ETC.</u></b>				
	<b><u>Dormakaba or other approved:</u></b>				
1	DBB-SS-009 102 x 75 x 3 SS Two ball bearing butt hinge	No	46		
	<b><u>Bolts and latches:</u></b>				
2	100 x 25mm SC on brass barrel bolt	No	3		
	<b><u>LOCKS</u></b>				
	<b><u>Dormakaba or other approved:</u></b>				
3	DO37D Stainless steel cylinder deadlock	No	1		
4	DMWC-SS-008 Stainless steel bathroom deadlock	No	12		
5	DO36S Stainless steel cylinder sashlock	No	5		
6	DSC104301 MK 43mm Five pin Euro profile single cylinder master keyed (satin nickel)	No	1		
7	DDC106601 MK 66mm Five pin euro-profile cylinder grand master keyed (satin nickel)	No	5		
8	DWC-005 Stainless steel red and white WC indicator and turnknob set	Sets	11		
9	DWC-006 Stainless steel disabled red and white WC indicator and turnknob set for physically impaired	Sets	1		
	<b><u>HANDLES</u></b>				
	<b><u>Dormakaba or other approved:</u></b>				
10	DCE-002 Stainless steel round cylinder escutcheon	Pairs	1		
	<b>Carried to Collection</b>				
	Section No. 4 VIP AND GRADE R TOILETS Bill No. 9 IRONMONGERY				

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11	DPH-301B 325 x 25mm Stainless steel straight tubular pull handle, including fixing set	No	2		
12	DPH301C BTB 149 x 19mm Stainless steel straight tubular pull handle, including fixing set	No	11		
13	CB30 Cyl SC Lever handle set on plate with cylinder cutout	No	5		
<b><u>POLISHED STAINLESS STEEL PUSH AND KICK PLATES</u></b>					
<b><u>Dormakaba or other approved:</u></b>					
14	DPP-430-BL 170 x 170mm push plate with and including countersunk holes for screws (screws included)	No	11		
15	DKP-430-SF 150 x 920mm Stainless steel kick plate with and including ten countersunk holes for screws (screws included)	No	1		
<b><u>Door edge plate:</u></b>					
16	1,2mm Thick grade 430 stainless steel edge plate size 144 x 300mm, fixed to timber door, twice bent extending 50mm on both sides of door with and including six countersunk holes for screws (screws included)	No	3		
<b><u>DOOR STOPS, CABIN HOOKS, ETC.</u></b>					
<b><u>Dormakaba or other approved:</u></b>					
17	DDH-SS-020 wall buffer	No	1		
18	38mm Plain rubber doorstop	No	14		
<b><u>Halcast or other approved:</u></b>					
19	401 Satin chrome on brass floor mounted door holder	No	5		
<b><u>DOOR CLOSERS</u></b>					
<b><u>Dormakaba or other approved:</u></b>					
20	TS73V PA DC EN 2-4 delayed action door closer fixed to timber, steel or aluminium door lining/frame with and including parallel arm bracket	Sets	1		
<b><u>LETTERS, NAMEPLATES, ETC.</u></b>					
<b>Carried to Collection</b>					
Section No. 4 VIP AND GRADE R TOILETS Bill No. 9 IRONMONGERY					R

<b><u>Dormakaba or other approved:</u></b>				
21	DSS 131 F Stainless steel female sign	No	2	
22	DSS 130 M Stainless steel male sign	No	2	
23	DSS 132 M/F Stainless steel male and female sign	No	3	
24	DSS 133 P Stainless steel disabled person sign	No	1	
<b><u>Sundries</u></b>				
25	10mm Diameter steel dowel 100mm long in and including mortice in timber and concrete	No	12	
<b><u>BATHROOM FITTINGS, ETC.</u></b>				
<b><u>Towel rails:</u></b>				
26	19mm Diameter chromium plated towel rail 600mm long including end brackets plugged to wall	No	11	
<b><u>Franke or other approved:</u></b>				
27	Chronos BS677 0,9mm thick satin finished toilet roll holder (code 359816) plugged and screwed to wall	No	15	
<b><u>Dormakaba or other approved:</u></b>				
28	DGR-SS-152 Side grab rail (900mm long) plugged and screwed to wall with stainless steel screws	No	1	
29	DGR-SS-150 Cistern back rail (1006mm long overall) plugged and screwed to wall with stainless steel screws	No	1	
<b><u>3mm Thick clear perspex plate with engraved numerals 60mm high, fixed to timber frame in position with countersunk screws including mirror head screw caps, perspex width to be adjusted to accommodate number designation:</u></b>				
30	Plate with two numerical numbers	No	6	
<b>Carried to Collection</b>				
Section No. 4 VIP AND GRADE R TOILETS Bill No. 9 IRONMONGERY				R

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Bill No. 9

IRONMONGERY

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Bill No. 9  
IRONMONGERY

Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b>				
	<b><u>BILL No. 10: METALWORK</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>AAAMSA specification</u></b>				
	All aluminium doors and windows is to comply with the latest AAAMSA specification for architectural aluminium and glass products				
	<b><u>Hot dip galvanising</u></b>				
	Where hot dip galvanising is specified, it should be executed in accordance with SANS 121:2011 (ISO 1461:2009), unless otherwise described				
	<b><u>ALUMINIUM WINDOWS, DOORS, ETC.</u></b>				
	Where burglar bars are indicated in the window descriptions, these to be hot dip galvanised mild steel, manufactured from two 25 x 25 x 3mm angle section vertical members, secured internally and plugged and screwed to wall jambs of openings at 200mm centres, 20 x 3mm flat section horizontal members welded to vertical members along ends (number of horizontal members indicated for each window)				
	<b><u>White powder coated (ANP1052) aluminium windows glazed with NS 6,38mm thick Arctic Snow ZA100201 translucent laminated safety glass (powder coated burglar proofing to all opening and fixed sections) as per latest AAAMSA specification for architectural aluminium and glass products:</u></b>				
1	Window in single section top hung opening with restrictive stay, size 533 x 650mm high (W06)	No	23		
2	Window in two equal sections, both top hung opening with restrictive stays, one mullion, size 1000 x 650mm high (W03)	No	8		
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	Section No. 4 VIP AND GRADE R TOILETS Bill No. 10 METALWORK				

Item No	<b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b>	Unit	Quantity	Rate	Amount
	<b><u>BILL No. 11: PLASTERING</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>SCREEDS</u></b>				
	<b><u>3:1 Cement screed (SANS 2001) steel trowelled on concrete:</u></b>				
1	30mm Thick on floors	m2	74		
	<b><u>GRANOLITHIC</u></b>				
	<b><u>Untinted granolithic on concrete:</u></b>				
2	30mm Thick on floors	m2	5		
	<b><u>SPECIALIST EPOXY FLOOR FINISHES</u></b>				
	All specialist floor coverings are to be executed in strict accordance with the manufacturer's instructions				
	<b><u>Prepare and apply epoxy non-slip finish with Flowprime primer (@ 0,25kg/m<sup>2</sup>) and a 2mm thick Flowshield Quartz topping (@ 3kg/m<sup>2</sup>):</u></b>				
3	On floors	m2	74		
	<b><u>INTERNAL PLASTER</u></b>				
	<b><u>4:1 Cement plaster (SANS 2001) steel trowelled on brickwork:</u></b>				
4	On walls	m2	346		
5	On narrow widths	m2	11		
6	On foundation walls in pits (Provisional)	m2	71		
7	On narrow widths in foundations (Ditto)	m2	2		
	<b><u>EXTERNAL PLASTER</u></b>				
	<b>Carried to Collection</b>				
	Section No. 4 VIP AND GRADE R TOILETS Bill No. 11 PLASTERING				
					R

8	<p><b><u>5:1 Cement plaster (SANS 2001) wood floated on brickwork:</u></b> On foundation walls in pits (Provisional)</p>	m2	75		
	<p>Carried to Collection</p>				R

Section No. 4  
VIP AND GRADE R TOILETS  
Bill No. 11  
PLASTERING



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Bill No. 11

PLASTERING

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VIP AND GRADE R TOILETS  
Bill No. 11  
PLASTERING

Item No		Quantity	Rate	Amount
	<b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b>			
	<b><u>BILL No. 12: TILING</u></b>			
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents			
	<b><u>WALL TILING</u></b>			
	<b><u>200 x 200 x 5mm Thick matt white glazed ceramic tiles fixed to plaster with approved tile adhesive, 3mm wide continuous joints in both directions, pointed with dark grey anti-fungicidal grout:</u></b>			
1	On walls in isolated panels, splashbacks, etc.	m2	5	
	<b>Carried Forward to Summary of Section No. 4</b>			R
	Section No. 4 VIP AND GRADE R TOILETS Bill No. 12 TILING			

Item No	SECTION No. 4: VIP AND GRADE R TOILETS	Unit	Quantity	Rate	Amount
	<b><u>BILL No. 13: GLAZING</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>TOPS, SHELVES, DOORS, MIRRORS, ETC.</u></b>				
	<b><u>6mm Thick 'GG' quality polished silvered float glass copper backed mirror with polished edges holed for and fixed with round rose chromium plated mirror screws fixed to wall:</u></b>				
1	Mirror size 450 x 600mm high with four screws	No	9		
	<b>Carried Forward to Summary of Section No. 4</b>				R
	Section No. 4 VIP AND GRADE R TOILETS Bill No. 13 GLAZING				

Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION No. 4: VIP AND GRADE R TOILETS</u></b>				
	<b><u>BILL No. 14: PAINTWORK</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents				
	<b><u>PAINTWORK, ETC.</u></b>				
	<b><u>ON EXTERNAL FLOATED PLASTER</u></b>				
	<b><u>Prepare and apply one coat Plascon Professional Gypsum and Plaster Primer (PP700) and two coats Plascon Professional Hygiene Low Sheen paint on:</u></b>				
1	External pit foundation walls (Provisional)	m2	75		
	<b><u>ON INTERNAL FLOATED PLASTER</u></b>				
	<b><u>Prepare and apply one coat Plascon Professional Gypsum and Plaster Primer (PP700) and two coats Plascon Professional Hygiene Low Sheen paint on:</u></b>				
2	Internal walls	m2	358		
3	Internal pit foundation walls (Provisional)	m2	73		
	<b><u>ON FIBRE CEMENT</u></b>				
	<b><u>Prepare and apply one coat plaster primer and two coats eggshell enamel paint on:</u></b>				
4	Cills, etc. not exceeding 300mm girth	m	19		
	<b><u>Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one universal undercoat and two coats interior quality acrylic emulsion paint on:</u></b>				
5	Ceilings and cornices	m2	74		
	<b>Carried to Collection</b>				
	Section No. 4 VIP AND GRADE R TOILETS Bill No. 14 PAINTWORK				R

6	<p><b><u>Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one universal undercoat and two coats exterior quality acrylic emulsion paint on:</u></b></p>	m2	64	
	<p><b><u>ON WOOD</u></b></p>			
	<p><b><u>Two coats wood primer on:</u></b></p>			
7	<p>Backs of frames, linings, etc. not exceeding 300mm wide.</p>	m	95	
	<p><b><u>Prepare, stop and apply one coat Plascon Wood Primer (UC2) and two coats Plascon Wall &amp; All (WAA1) paint on:</u></b></p>			
8	<p>Skirtings, cornices, rails, etc. not exceeding 300mm girth</p>	m	85	
	<p><b><u>Prepare and apply three coats Nova 16 Novaglow with a Kiaat finish, including sanding down between all coats, on:</u></b></p>			
9	<p>Timber doors (both sides measured)</p>	m2	70	
10	<p>Frames, cills, etc. not exceeding 300mm girth</p>	m	95	
	<p><b><u>ON PVC</u></b></p>			
	<p><b><u>Clean down and apply two coats exterior quality acrylic emulsion paint on:</u></b></p>			
11	<p>150mm Diameter PVC diameter pipe</p>	m	47	
	<p style="text-align: right;"><b>Carried to Collection</b></p>			<p style="text-align: center;">R</p>
	<p>Section No. 4 VIP AND GRADE R TOILETS Bill No. 14 PAINTWORK</p>			

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Bill No. 14

PAINTWORK

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VIP AND GRADE R TOILETS  
Bill No. 14  
PAINTWORK

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Item No	Quantity	Rate	Amount
<p><b><u>SECTION No. 5: PLUMBING &amp; DRAINAGE (PROVISIONAL)</u></b></p>			
<p><b><u>BILL No. 1: PLUMBING &amp; DRAINAGE</u></b></p>			
<p>The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 Series documents</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Polycop polypropylene pipes</u></b></p>			
<p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with Fast-fuse heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p>			
<p>Pipes shall be firmly fixed to walls, etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p>			
<p>All pipe diameters are nominal external</p>			
<p><b><u>Fixing of pipes</u></b></p>			
<p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, chasing into walls, etc. casting into concrete, building in or suspending not exceeding 1m below suspension level</p>			
<p><b><u>Flexible connectors</u></b></p>			
<p>Tenderers are to allow for the pricing of flexible connectors to all instances where deemed necessary. No extra will be entertained in this regard.</p>			
<p><b><u>Disinfection of water pipework</u></b></p>			
<p>All pipework is to be disinfected in accordance with SABS 1200L</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 5 PLUMBING &amp; DRAINAGE (PROVISIONAL) Bill No. 1 PLUMBING &amp; DRAINAGE</p>			
		R	



**Reducing fittings**

Where fittings have reducing ends or branches, they are described as "reducing". In the case of pipes with diameters not exceeding 60mm, only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm, all sizes are given and no claim for extra bushes, reducers, etc. will be entertained

**Waste unions**

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

**Excavation and filling**

Excavation and backfilling must be done using hand held tools only

No claim for rock excavation will be entertained unless the Contractor has timeously notified the Quantity Surveyor thereof prior to backfilling

**Laying, backfilling, bedding, etc. of pipes**

Where no manufacturer's instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage.

**SANITARY PLUMBING**

**Unplasticised polyvinyl chloride (uPVC) pipes:**

1	40mm Pipe fixed to walls, etc.	m	10
2	50mm Ditto	m	13
<b><u>Extra over uPVC pipes for:</u></b>			
3	40mm Bend	No	12
4	50mm Ditto	No	28
5	40mm Access bend	No	4
6	50mm Ditto	No	4

**Carried to Collection**

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Section No. 5  
PLUMBING & DRAINAGE (PROVISIONAL)  
Bill No. 1  
PLUMBING & DRAINAGE

7	40mm Access junction	No	3
8	50mm Ditto	No	1

**Testing:**

9	Allow for testing sanitary plumbing system		Item
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**WATER SUPPLIES**

**Internal water supplies:**

Prices for all piping laid in ground, inspection chambers, etc. shall include for excavations, keeping free of water, distributing surplus material on site (carting away has been separately measured) and backfilling in selected material (imported fill where required will be separately measured)

Holes, chases, etc. are deemed to be included in the descriptions of the pipework

**Polycop or other approved polypropylene pipes, including chasing into brick walls if required:**

10	15mm Pipe	m	20
11	22mm Ditto	m	18
12	28mm Ditto	m	10

**Extra over Polycop pipes for brass compression fittings:**

13	15mm Pipe fittings	No	21
14	22mm Ditto	No	18
15	28mm Ditto	No	12

**Testing:**

16	Allow for testing water supply system		Item
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**SANITARY FITTINGS**

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Section No. 5  
PLUMBING & DRAINAGE (PROVISIONAL)  
Bill No. 1  
PLUMBING & DRAINAGE

**Supply and fix the following sanitary fittings, geysers and equipment together with loose ancillary fittings supplied therewith, including unloading, storing, unpacking, hoisting or lowering as required, fixing and building into position, cutting all mortices and chases as required for fixing and building in position, cutting, brackets, clamps, etc. and connecting up pipework and handing over in perfect working order at completion:**

**Vaal or other approved:**

17	Hibiscus Ref 7023 white vitreous china wall hung basin, size 510 x 405mm with stopper to one taphole and fixed to wall	No	9
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**Atlas Plastics or other approved:**

18	VIP 200 pit pedestal size 370 x 500mm high (code: 222AP) with foot piece and VIP 200 inlet funnel, inserted into precast concrete cover slab of pit (elsewhere measured) with a removable plug, with and including four 6mm diameter x 50mm long expansion bolts, including heavy duty white double flap seat fixed to pedestal.	No	3
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19	VIP 450 pit pedestal size 507 x 565mm high (code: 237AP) with foot piece and VIP 450 inlet funnel, inserted into precast concrete cover slab of pit (elsewhere measured) with a removable plug, with and including four 6mm diameter x 50mm long expansion bolts, including heavy duty white double flap seat fixed to pedestal	No	12
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20	508AP Viking urinal (code: 101243) with 40mm waterless waste - 496 (code: 101228), overall size 363 x 320 x 553mm high plugged and screwed to wall with galvanised screws and brackets	No	4
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**TAPS, VALVES, ETC.**

**Cobra Watertech or other approved:**

21	15mm Star 112-CP raised nose pillar tap	No	8
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22	15mm Type 505-21 CP elbow action pillar tap	No	1
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**WASTE UNIONS, TRAPS, ETC.**

**Marley or other approved:**

23	32 x 40mm Flexitrap butyl rubber deep seal P or S trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	4
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**Cobra Watertech or other approved:**

24	32mm Chromium plated 303-CP slotted basin waste union complete with plug only	No	9
25	32mm Chromium plated deep seal bottle trap with outlet for 50mm PVC (Code 345/50).	No	9

**PLUMBING RELATED ITEMS TO PIT TOILET BLOCKS**

**Unplasticised polyvinyl chloride (uPVC) pipes:**

26	150mm Pipe fixed to walls, etc.	m	68
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**Sundries:**

27	240mm Diameter Ventura or other approved turbo valve whirlybird with 150mm diameter throat	No	15
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**Galvanised steel double seal manhole cover and frame:**

28	Type 8A size 450 x 600mm cast in concrete slab (elsewhere measured)	No	8
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**WATER PURIFICATION/ BOOSTER PUMP INSTALLATION**

An installation is required to pump water from a rainwater harvesting tank at ground level, through a filtration system and chlorinator, up into a 10m<sup>3</sup> elevated tank stand. The level control in the tank stand will be with a ball valve. The water will be used for drinking water, personal hygiene and, where appropriate, for food preparation.

The filtrations system and chlorination system must match the flow rates of the booster pump described below and the duty point of the pump must be adjusted to counter any additional energy losses of the system.

Prior to installation, the contractor must submit a complete technical proposal of the installation for approval by the Engineer.

After successful commissioning, training must be provided to the most senior person on site on the day of completion of the pumping/ filtration/ disinfection system. The person trained will complete a competence form and will be responsible for passing the knowledge onto the relevant persons. The complete booster pump installation must be pressure and leak tested with the complete water supply system. All installations must carry a one year manufacturers' guarantee on all workmanship and parts. The guarantee will not cover the cost of damage due to vandalism, breakage or misuse of the parts. The installer must ensure that the water pump enclosure (measured separately) are installed in a position that complies with

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regulations and according to the instruction of the Engineer. The installer must allow in his rates for installation of conduits, piping and final installation as no additional costs will be entertained.

The following specifications are applicable on the installation:

Hydrosphere pressure booster pump:

- Dual booster pump in duty/ standby arrangement.
- 220V 2900 rpm single phase booster pumps with hydrosphere.
- Protection and housings: IP65
- Duty point: 0.5 m<sup>3</sup>/h at 180kPa (pump to also be sized for backwash function of the filter).
- Power = ± 0.25kW
- Control: Automatic mode: hydrosphere with pressure sensing.
- Manual mode: manual on and off with pressure sensing protection.
- Centralised control panel:
  - o Thermal protection
  - o Overload protection
  - o Lighting/surge protection
  - o Hour meter per pump
  - o Ammeter and voltmeter

Filtration and disinfection:

- The filtration system must be suitable for filtration of water harvested from roofs and must be of the automatic backwashing multimedia filter type and with a 0,5m<sup>3</sup>/h nominal capacity.
- Disinfection and sterilization system must be a Sodium Hypochlorite dosing system for disinfection and sterilization of the water at the stated filtration flow rate.

The items below must include for the complete installation, including all pipework, testing, and electrical components.

**Water Purification/Booster Pump Installation:**

29	Dual hydrosphere booster pump	SUM
30	Filtration unit	SUM
31	Disinfection unit	SUM
32	Commissioning and testing	SUM
33	Training	SUM
34	Complete electrical controls and switchgear	SUM

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35 Manuals and parts lists  
36 Certificates of Compliance

SUM  
SUM

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Item No	Unit	Quantity	Rate	Amount
<p><b><u>SECTION No. 6: EXTERNAL WORKS (PROVISIONAL)</u></b></p>				
<p><b><u>BILL No. 1: EXTERNAL WORKS</u></b></p>				
<p>The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document and SANS 2001 series documents</p>				
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>				
<p><b><u>Concrete</u></b></p>				
<p>All concrete work to be carried out in accordance with SABS 1200G</p>				
<p><b><u>Cost of tests</u></b></p>				
<p>The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200G, shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Principal Agent (test cubes are measured separately)</p>				
<p><b><u>Formwork</u></b></p>				
<p>Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>				
<p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself</p>				
<p>Formwork to soffits of solid slabs, etc. shall be deemed to be slabs not exceeding 250mm thick unless otherwise described</p>				
<p>Formwork to sides of bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the Engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"</p>				
<p><b>Carried to Collection</b></p>				
<p>Section No. 6 EXTERNAL WORKS (PROVISIONAL) Bill No. 1 EXTERNAL WORKS</p>				
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Degree of accuracy: Accuracy II as SABS 1200G

**Reinforcement**

Reinforcement to include 30MPa concrete cover blocks to ensure correct cover to reinforcing

**Hot dip galvanising**

Where hot dip galvanising is specified, it should be executed in accordance with SANS 121 specification for coastal conditions, unless otherwise described

**Maintenance period**

Attention is drawn to the maintenance period of twelve (12) months from Practical Completion applicable to the civil portions of the work which includes the access road, platforms, retainer walls, ramps, paved walkways, roadwork, stormwater drainage, soil drainage, stormwater reticulation, water supply and elevated water tank, etc.

**Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid in accordance with the following SANS 2001 Series documents:

- Part DP1 : Pipe trenches
- Part DP2 Clause 4.3 : Medium-pressure pipelines
- Part DP4 Clause 4.3 : Sewers
- Part DP5 Clause 4.2.3 : Stormwater drainage

**Excavations**

No claim for rock excavation will be entertained unless the Contractor has timeously notified the Quantity Surveyor thereof prior to backfilling

Class of excavations will be in accordance with SABS 1200D Clause 3.1. For the purpose of this project "Soft Rock" will have the same meaning as Intermediate excavations as defined in SABS 1200D Clause 3.1

Boulder excavation definitions as stated in SABS 1200D will not apply

Classification of soils and gravel is in accordance with SABS 1200M: 1996 Table 3A & 3B or TRH14

Open face excavation is in accordance with SANS 2001: Part BE1

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**Reinforced concrete work**

All aspects of structural concrete work (plain and reinforced) for civil engineering and building construction shall be in accordance with the requirements of SANS 2001: Part CC1 and SABS 0155 (Accuracy in Building). Any discrepancies are to be referred to the Engineer

1.1 Concrete mixes: All concrete mixing shall conform to SANS 2001: Part CC1. Specialised concrete applications will be referred to the Engineer. All aggregates used are to be approved by the Engineer. The water is to be clean as for human consumption

1.2 Concreting: Concreting shall conform to SANS 2001: Part CC1. All dirt and trash shall be removed from the formwork before concreting. Concrete shall be thoroughly consolidated by means of tamping or vibration

1.3 Maintaining reinforcement in position: The Contractor shall ensure that the correct concrete cover is maintained during the casting of concrete. In order to do this the Contractor shall provide suitable concrete or plastic cover blocks. All reinforcing is to be inspected and approved by the Engineer prior to casting of concrete. The Engineer shall be given 24 hours notice prior to any inspection required

1.4 Cure: All new concrete shall be thoroughly cured by means of a resin-based curing compound or as approved by the Engineer

**Viewing of the site**

Before submitting his tender, the Contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained.

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Tenderers are to note that a portion of the works to be demolished, may contain harmful elements/materials. These materials, if present, needs to be identified by the Tenderer and priced accordingly to allow for the correct procedure of removal and disposal thereof in terms of the latest legislation applicable.

No analysis report has been included in these documents and Tenderers shall be required to establish whether certain elements of the structures are harmful materials or not.

The measured items in this section will not indicate which materials should be treated as harmful; that decision will be left for Tenderers to decide (based on their own assessment) and to thus price the various elements/items accordingly.

No extra cost will be entertained should the Contractor establish at a later stage that some materials are harmful and their pricing did not include for the additional cost applicable due to legislative requirements relating to removal and disposal thereof.

**Water reticulation system**

The Contractor is to allow for a complete operational manual and training for the water reticulation system.

**TEMPORARY BARRIERS, SCREENS, ETC. AND RELOCATION OF EXISTING STRUCTURES**

**Temporary hoarding including dismantling all hoarding, filling all post holes and compacting and levelling to adjacent ground levels:**

1	Hoarding formed of 1,8m high galvanised steel weldmesh type fencing with 50 x 100mm apertures, secured to and including 60mm diameter treated gumpole fencing posts 2400mm long at 2m centres, gumpoles securely bedded 600mm deep in ground, medium grade shade cloth securely fastened to and including four rows of 4mm diameter straining wires, fastened to fencing and posts with 2mm diameter galvanised binding wire at 400mm centres, including all excavations, etc.	m	215
2	Pedestrian gate size 1000 x 1800mm high complete with all necessary posts, hinges, locking mechanism, etc.	No	1
3	Vehicular double gate size 4000 x 1800mm high complete with all necessary posts, hinges, locking mechanism, etc.	No	1

**REMOVAL OF EXISTING WORK**

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**Take down and remove complete with all posts, concrete bases, etc. including filling in post holes:**

4	Existing 1800mm high steel weldmesh fence complete with all steel or timber posts at approximately 3m centres	m	215
5	Existing double leaf gate size 5000 x 2000mm high	No	1

**DEMOLITIONS AND REMOVAL OF EXISTING WORK**

**Breaking up/taking down/lifting up and remove:**

6	Concrete and brick steps	m3	2
7	Water tank (5 000 litre) with circular stand size 1,80m diameter x 0,15m high comprising brickwork sides, concrete slab on top including concrete foundations, filling, etc.	No	1
8	Existing concrete slab, etc. size 3000 x 3000 x 50mm thick	No	3
9	Existing steel solar panel and steel stand with concrete base approximately 300mm thick, overall size 2000 x 2000 x 4000mm high	No	1

**Demolish and remove existing structures including levelling out area[s] where demolitions took place:**

10	Existing single storey building complete with all components, foundations, etc. comprising concrete surface bed, 230mm external block walls, corrugated iron roof covering on timber trusses, size 10000 x 5000mm on plan (2600mm high at eaves)	No	1
11	Existing single storey circular building complete with all components, foundations, etc. comprising concrete surface bed, 230mm external block walls, corrugated iron roof covering on timber trusses, size 6000mm diameter on plan (2600mm high at eaves)	No	1
12	Existing single storey building complete with all components, foundations, etc. comprising concrete surface bed, 230mm external block walls, corrugated iron roof covering on timber trusses, size 17500 x 6000mm on plan (2600mm high at eaves)	No	1
13	Existing single toilet building comprising concrete surface bed, corrugated iron walls, corrugated iron roof covering on timber framing, size 2000 x 1500mm on plan.	No	1

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<b><u>Take down and remove complete with all posts, bases, etc. including filling in post holes:</u></b>					
14	Existing 1500mm high diamond mesh security fence complete with all timber gumpole support posts at approximately 3m centres	m	193		
15	Existing double leaf gate size 4000 x 2000mm high	No	1		
<b><u>BULK AND OR OPEN FACE EXCAVATION, FILLING, ETC.</u></b>					
<b><u>Site clearance, etc.:</u></b>					
16	Allow for clearing the site including removing trees, shrubs, etc. not exceeding 200mm girth, grubbing up roots and roughly levelling	m2	2,600		
17	Remove topsoil and vegetation to a depth of 200mm and deposit on site in stockpiles where directed by the Principal Agent	m2	2,600		
<b><u>Open face excavation over sloping site:</u></b>					
18	Open face excavation to form platforms under buildings, etc. and depositing excavated material in stockpiles on site	m3	872		
<b><u>Extra over bulk excavation in earth for excavation in:</u></b>					
19	Soft rock	m3	554		
20	Hard rock	m3	238		
<b><u>Extra over all excavations for carting off site to a location to be identified by the Contractor:</u></b>					
21	Surplus material from stockpiles on site	m3	500		
<b><u>Keeping excavations free of water:</u></b>					
22	Keeping excavations free of all water other than subterranean water		Item		
<b><u>Selected fill material from stockpiles:</u></b>					
23	Over site compacted to a minimum of 95% Mod AASHTO dry density	m3	125		
<b><u>Compaction of surfaces:</u></b>					
24	Compaction of in-situ surfaces, etc. including scarifying for a depth of 150mm, breaking down oversized material and compacting to a minimum of 93% Mod AASHTO dry density	m2	2,600		
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<b><u>Earth filling supplied by the Contractor under platforms, etc.:</u></b>					
25	Over site of G6 natural gravel material compacted to a minimum of 95% Mod AASHTO dry density in 150mm layers for base course	m3	1,900		
26	Over site of G6 natural gravel material compacted to a minimum of 95% Mod AASHTO dry density in 150mm layers for base course to raft foundation	m3	135		
<b><u>Prescribed density tests on filling:</u></b>					
27	CBR test in accordance with method A8 of TMH 1	No	4		
28	Modified AASHTO Density test	No	20		
29	Complete test sets to determine soil classification in terms of TRH14	No	6		
30	DCP test according to TMH6	No	12		
<b><u>Topsoil from spoilheaps, including spreading and levelling in 150mm layers:</u></b>					
31	On embankments, etc.	m2	224		
<b><u>Compost, fertilizer, etc.:</u></b>					
32	Mix 2:3:2 fertilizer into topsoil at a rate of 50g/m <sup>2</sup>	m2	224		
<b><u>Kaytech Soilsaver 292g/m2 or other approved natural jute fibre hession soil protecion weave, including pegging into soil and burying of edges into soil:</u></b>					
33	On embankments, etc.	m2	224		
<b><u>Grassing, ground covers, etc.:</u></b>					
34	Sow Eragrostis Curvula and Teff grass seed in a ratio of 4:5 by weight at a rate of 2g/m <sup>2</sup> to embankments, etc.	m2	224		
<b><u>Maintenance:</u></b>					
35	Maintenance of grassed areas for a period of 3 months after Practcial Completion (total area approximately 1600m <sup>2</sup> ) including regularly weeding and irrigating as necessary			Item	
<b><u>PARKING AREA</u></b>					
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	<b><u>Excavation in earth not exceeding 2m deep in:</u></b>			
36	Foundation beams	m3	4	
	<b><u>Extra over trench and hole excavations in earth for excavation in:</u></b>			
37	Soft rock	m3	1	
38	Hard rock	m3	1	
	<b><u>Extra over all excavations for carting off site to a location to be identified by the Contractor:</u></b>			
39	Surplus material from excavations	m3	4	
	<b><u>Risk of collapse of excavations:</u></b>			
40	Sides of trench and hole excavations not exceeding 1,5m deep	m2	16	
	<b><u>Keeping excavations free of water:</u></b>			
41	Keeping excavations free of all water other than subterranean water		Item	
	<b><u>Earth filling obtained from the excavations and/or prescribed stockpiles on site compacted to a minimum of 95% Mod AASHTO dry density:</u></b>			
42	Backfilling to trenches, holes, etc.	m3	2	
	<b><u>Earth filling supplied by the Contractor under roads, etc.:</u></b>			
43	Over site of G7 natural gravel material compacted to a minimum of 93% Mod AASHTO dry density in 150mm layers for parking areas	m3	35	
44	Over site of G5 natural gravel material compacted to a minimum of 95% Mod AASHTO dry density in 150mm layers for parking areas	m3	35	
	<b><u>Compaction of surfaces:</u></b>			
45	Compaction of ground surface under roads, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to a minimum of 90% Mod AASHTO dry density	m2	236	
	<b><u>Prescribed density tests on filling:</u></b>			
46	Modified AASHTO density test	No	5	
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	<b><u>Brick-on-edge header course copings of Golden Wheat Travertine Imperial FBX clay face bricks pointed with 6mm square recessed horizontal and vertical joints as the work proceeds:</u></b>			
59	220mm Wide bullnose edged face brick-on-edge roller course to top of wall	m	7	
	<b><u>Precast concrete block road surfacing</u></b>			
	Precast concrete paving blocks shall be class 25 Type S-A and able to withstand 30kN loads			
	Paving is to be laid to herringbone pattern on 20mm (thickness after final compaction) clean river sand (preparation of ground or filling elsewhere measured)			
	Clean sand is to be swept into joints between roadstones			
	<b><u>Paving of 220 x 110 x 80mm thick precast concrete paving blocks with butt joints, laid on and including 20mm thick river sand bed with sand swept into joints (preparation of ground or filling elsewhere measured):</u></b>			
60	Paving to parking areas, etc. to falls and cross falls	m2	236	
	<b><u>Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing:</u></b>			
61	Standard kerb (SANS 927 figure 14) 125 x 250mm high including excavation, backfilling, etc.	m	27	
62	Barrier kerb (SANS 927 figure 4) 150 x 250mm high with 150 x 150mm unreinforced concrete (15MPa/19mm) continuous haunching at back and bedded on unreinforced concrete (15MPa/19mm) bedding 50mm thick including excavation, backfilling, etc.	m	64	
	<b><u>White road marking paint to SABS 731 on concrete pavers:</u></b>			
63	Line 100 mm wide	m	40	
	<b><u>Yellow road marking paint to SABS 731 on concrete pavers:</u></b>			
64	GM6.3 wheelchair sign size overall 1200 x 1200mm	No	1	
	<b><u>WALKWAYS, RAMPS, STAIRS, CONCRETE INFILL, ETC.</u></b>			
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<b><u>Excavation in earth not exceeding 2m deep:</u></b>					
65	Trenches	m3	59		
<b><u>Extra over all excavations for carting off site to a location to be identified by the Contractor:</u></b>					
66	Surplus material from excavations on site	m3	59		
<b><u>Risk of collapse of excavations:</u></b>					
67	Sides of trench and hole excavations not exceeding 1,5m deep	m2	63		
<b><u>Keeping excavations free of water:</u></b>					
68	Keeping excavations free of all water other than subterranean water			Item	
<b><u>Earth filling supplied by the Contractor under roads, embankments, etc.:</u></b>					
69	Over site of G7 natural gravel material compacted to a minimum of 95% Mod AASHTO dry density in 150mm layers for embankments	m3	147		
70	Over site of G5 natural gravel material compacted to a minimum of 95% Mod AASHTO dry density in 100mm layers for concrete areas	m3	28		
<b><u>Compaction of surfaces:</u></b>					
71	Compaction of ground surface under concrete areas, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to a minimum of 90% Mod AASHTO dry density	m2	470		
<b><u>25MPa/19mm Reinforced concrete cast against excavated surfaces:</u></b>					
72	Footings	m3	14		
<b><u>25MPa/19mm Reinforced concrete:</u></b>					
73	Concrete infill areas	m3	31		
74	Ramps	m3	34		
75	Walkways	m3	22		
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<b><u>Concrete tests:</u></b>			
76	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes	No	5
<b><u>Finishing top surfaces of concrete with broom/brush finish:</u></b>			
77	Ramps, walkways, etc. to falls	m2	470
<b><u>Rough formwork to sides:</u></b>			
78	Edges, risers, ends and reveals exceeding 300mm high or wide	m	379
79	Extra over for 20 x 20mm chamfer to top edge	m	379
<b><u>Forming recess/nib to concrete, including all necessary formwork, etc.:</u></b>			
80	200 x 200mm High edge beam to bottom edge of walkway and ramps with internal side of beam sloping 144mm outwards to 344mm beam width	m	379
<b><u>Permanent rough formwork to soffits:</u></b>			
81	Slabs and propping up not exceeding 1,5m high above bearing level	m2	13
<b><u>High tensile steel reinforcement to structural concrete work:</u></b>			
82	12mm Diameter bars	t	1.10
83	10mm Diameter bars	t	2.19
84	25mm Diameter x 600mm long dowel cast into concrete	No	24
<b><u>Fabric reinforcement:</u></b>			
85	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	325
86	Type 311 fabric reinforcement in concrete surface beds, slabs, etc.	m2	13
<b><u>Brickwork of NFX bricks (14MPa nominal compressive strength) in Class II mortar:</u></b>			
87	Half brick wall	m2	3
88	One brick wall	m2	7

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	<b><u>Steel security gate complete including building in as required:</u></b>				
99	Hot dip galvanised steel framed and welded double gate assembly in two equal leaves, each leaf formed of 50 x 50 x 2mm square hollow section outer frame and one transome, mitred and welded at corners, filled in with 10 x 10mm tubular inserts welded to outer frame and transome diagonally at 45 degrees at 100mm centres, including 120mm diameter opening in one leaf for and fitted with 12mm diameter sliding bolt with small handle in centre of one stile, opening formed of 10 x 10mm tubular framing shaped circularly and welded on, each leaf fitted with two heavy duty hinges (elsewhere measured) welded on and bolted to wall system, including setting up, adjusting and securing, size 1760 x 1825mm high (G07)	No	1		
	<b><u>Hot dip galvanised steel framed and welded balustrading sections consisting of 75 x 50mm thick flat section top and bottom rails (horizontal and/or raking) and vertical end balusters, all mitred and welded at intersections, fitted with 50 x 50mm intermediate rail, 25 x 25 x 2mm vertical balusters spaced at 100mm centres, with ends welded to horizontal or raking bottom and intermediate rail, with joints to all sections scribed and welded with welds ground smooth, including all assembly, welding, irregular joints, setting up and adjusting and securely bolting posts to concrete and/or brickwork, joining panels together, all as described:</u></b>				
100	75 x 50mm Flat section horizontal or raking top or bottom rail	m	330		
101	Ditto in vertical end post	m	77		
102	75 x 50mm Flat section with one end welded/bolted to baseplate, and other end welded to horizontal or raking bottom rail	m	35		
103	50 x 50mm Flat section horizontal or raking intermediate rail	m	165		
104	25 x 25mm Vertical balusters with ends welded to horizontal or raking intermediate rail (approximately 1650 No. off)	m	957		
105	25 x 25mm Vertical balusters with ends welded between horizontal or raking intermediate and top rail (approximately 132 No. off)	m	10		
106	Extra over 75 x 50mm flat section rail for ramp, bend or knee intersection	No	24		
107	100 x 100 x 5mm Thick baseplate welded to bottom end of 75 x 50mm vertical or slightly inclined rail, four times holed for and bolted to concrete or brickwork with and including 10mm diameter x 100mm long bolts and 20mm thick non-shrink grout under baseplate	No	104		
	<b>Carried to Collection</b>				
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	<b><u>Subsoil drain:</u></b>			
108	Flo-drain Flownet or other approved drainage core and Bidim filler jacket, placed in position vertically to back face of retaining wall and wrapping around 110mm diameter pipe (elsewhere measured)	m2	73	
109	110mm Diameter HDPe flexible slotted drainage pipe laid in 300 x 300mm high drain, formed of 19mm crushed stone all wrapped in geo-fabric material on top of 375mm wide layer of 375 micron green polyethylene waterproof sheeting	m	49	
110	Extra over 110mm HDPe flexible slotted drainage pipe for angle, intersection, end, dressing into side of catchpit, etc.	No	12	
	<b><u>GABION RETAINING WALLS</u></b>			
	<b><u>Gabion cage formed of 50mm double twist hexagon woven mesh using galvanised mild steel wire to SANS 675 stitched closed, manufactured in accordance with SANS 1580, lined with AG double needle punched Geotextile at all mesh soil interfaces and filled with 100mm stone fill that must be non-friable, insoluble and hence granite, basalt, limestone or sandstone including necessary excavating, carting away, etc. all constructed to SANS 1200DK with cage intervals to a maximum of 3m lengths:</u></b>			
111	Gabion cage size 2000 x 1000 x 500mm deep using 50mm galvanised diamond mesh stitched closed, lined with Bidim A14 geotextile fabric and filled with 100mm stones including necessary excavating, carting away, etc.	No	7	
112	Gabion cage size 3000 x 1000 x 1000mm deep using 50mm galvanised diamond mesh stitched closed, lined with Bidim A14 geotextile fabric and filled with 100mm stones including necessary excavating, carting away, etc.	No	43	
113	Gabion cage size 3000 x 1000 x 1500mm deep using 50mm galvanised diamond mesh stitched closed, lined with Bidim A14 geotextile fabric and filled with 100mm stones including necessary excavating, carting away, etc.	No	104	
114	Gabion cage size 3000 x 1000 x 2000mm deep using 50mm galvanised diamond mesh stitched closed, lined with Bidim A14 geotextile fabric and filled with 100mm stones including necessary excavating, carting away, etc.	No	136	
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	<b><u>Concrete spreader:</u></b>			
115	Stormwater grouted stone pitching size 2000 x 2000mm, comprising of 150mm thick unreinforced concrete (15MPa/19mm) base and bedding 100mm diameter stones in concrete spaced at 200mm centre spacings to falls including brushing concrete between stones	No	5	
	<b><u>Sundries:</u></b>			
116	Reno mattress cage size 3000 x 1000 x 300mm deep using 50mm galvanised diamond mesh stitched closed, lined with Bidim A14 geotextile fabric and filled with 100mm stones including necessary excavating, carting away, etc.	No	5	
	<b><u>ENTRANCE WALL AND STORMWATER CHANNEL</u></b>			
	<b><u>Excavation in earth not exceeding 2m deep:</u></b>			
117	Trenches	m3	9	
118	Bases	m3	2	
	<b><u>Extra over trench and hole excavations in earth for excavation in:</u></b>			
119	Soft rock	m3	1	
120	Hard rock	m3	1	
	<b><u>Extra over all excavations for carting off site to a location to be identified by the Contractor:</u></b>			
121	Surplus material from excavations	m3	7	
	<b><u>Risk of collapse of excavations:</u></b>			
122	Sides of trench and hole excavations not exceeding 1,5m deep	m2	29	
	<b><u>Earth filling obtained from the excavations and/or prescribed stockpiles on site compacted to a minimum of 95% Mod AASHTO dry density:</u></b>			
123	Backfilling to trenches and bases, etc.	m3	3	
	<b><u>Keeping excavations free of water:</u></b>			
124	Keeping excavations free of all water other than subterranean water		Item	
	<b>Carried to Collection</b>			
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	<b><u>15MPa/19mm Unreinforced concrete cast against excavated surfaces:</u></b>				
125	Strip footings	m3	4		
126	Bases	m3	1		
	<b><u>20MPa/19mm Reinforced concrete:</u></b>				
127	Seating slabs	m3	0.2		
	<b><u>Finishing top surfaces of concrete smooth with a steel trowel:</u></b>				
128	Seat slabs	m2	1		
	<b><u>Smooth formwork to sides and soffits:</u></b>				
129	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	6		
130	Soffits of seating slab not exceeding 300mm wide and propping up not exceeding 1,5m above bearing level	m	2		
	<b><u>High tensile steel reinforcement to structural concrete work:</u></b>				
131	12mm Diameter bars	t	0.25		
132	10mm Diameter bars	t	0.25		
	<b><u>Fabric reinforcement:</u></b>				
133	Type 195 fabric reinforcement in concrete surface beds, slabs, etc.	m2	1		
	<b><u>Brickwork of NFX bricks (14MPa nominal compressive strength) in Class II mortar:</u></b>				
134	Mass brickwork in pier	m3	2		
135	One brick wall in two half brick skins tied together with and including galvanised wire ties	m2	29		
	<b><u>Weepholes, openings, etc.:</u></b>				
136	Form hole size 75 x 105mm thick through one brick wall with facings both sides	No	3		
	<b><u>Brickwork reinforcement:</u></b>				
137	150mm Wide reinforcement built in horizontally	m	116		
	<b>Carried to Collection</b>				
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	<b><u>Agate Satin FBX clay face brickwork, manufactured in accordance with SANS 227:2007, including pointing with 6mm square recessed horizontal and vertical joints as the work proceeds:</u></b>			
138	Extra over brickwork for face brickwork	m2	46	
139	Extra over brickwork for brick-on-edge header course lintol pointed on face and 230mm soffit	m	7	
	<b><u>One layer of 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B):</u></b>			
140	In walls, under cills, etc.	m2	3	
	<b><u>Classic or other approved hot dip galvanised steel pallisade fencing, formed of two 40 x 40 x 2mm hollow section steel rails filled in with 25 x 25 x 5mm angle section steel bars with spearheads at 150mm centres, the rails with fixing plates welded to each end and fixed to wall/posts with and including suitable expansion bolts:</u></b>			
141	Panel size 200 x 850mm high	No	3	
142	Ditto size 1000 x 850mm high	No	1	
143	Ditto size 2000 x 1500mm high	No	1	
144	Ditto size 3600 x 1500mm high	No	1	
	<b><u>Hot dip galvanised steel welded entrance and pedestrian gates, posts, etc.:</u></b>			
145	60 x 60 x 3,5mm Thick hollow section post 1500mm long to receive gate (elsewhere measured), with and including two 100 x 80 x 5mm thick fixing plates welded on and each fixing plate four times holed for and securely bolted to wall	No	4	
146	Double swing gate in two equal leaves, each leaf formed of 60 x 60 x 3,5mm thick hollow section bottom frame and two vertical outer frames with top ends of outer frames spearheaded, two 30 x 30 x 3mm thick cold formed horizontal sections, welded to vertical sections, horizontal sections slotted to receive 35 x 35 x 3mm thick angle sections 2m long fitted vertically at 118mm centres, with top ends spearheaded and bottom ends welded on, three heavy duty hinges per leaf welded to hollow section post (elsewhere measured), suitable castor to each leaf, fitting 50mm linked chain 600mm long and 63mm brass five pin tumbler padlock with two keys, including setting up inside opening, adjusting and securing, size 1894 x 2200mm high (Type G13)	No	1	
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147	Ditto size 3600 x 2200mm high (Type G12)	No	1	
	<b>Signage:</b>			
148	Provide the amount of R 10 000.00 (Ten Thousand Rand) for signage to the entrance facade		Item	10,000.00
	<b>REFUSE ROOM</b>			
	<b>Excavation in earth not exceeding 2m deep:</b>			
149	Trenches	m3	10	
	<b>Extra over trench and hole excavations in earth for excavation in:</b>			
150	Soft rock	m3	2	
151	Hard rock	m3	1	
	<b>Extra over all excavations for carting off site to a location to be identified by the Contractor:</b>			
152	Surplus material from excavations	m3	4	
	<b>Risk of collapse of excavations:</b>			
153	Sides of trench and hole excavations not exceeding 1,5m deep	m2	15	
	<b>Keeping excavations free of water:</b>			
154	Keeping excavations free of all water other than subterranean water		Item	
	<b>Earth filling obtained from the excavations and/or prescribed stockpiles on site compacted to a minimum of 95% Mod AASHTO dry density:</b>			
155	Backfilling to trenches, holes, etc.	m3	2	
	<b>Earth filling supplied by the Contractor under surface beds, etc.:</b>			
156	Over site of G5 natural gravel material compacted to a minimum of 95% Mod AASHTO dry density in 150mm layers	m3	2	
	<b>Carried to Collection</b>			
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	<b><u>High tensile steel reinforcement to structural concrete work:</u></b>				
167	12mm Diameter bars	t	0.07		
168	10mm Diameter bars	t	0.12		
	<b><u>Brickwork of NFX bricks (14MPa nominal compressive strength) in Class II mortar:</u></b>				
169	One brick wall in two half brick skins tied together with and including galvanised wire ties	m2	25		
	<b><u>Bagging and sealing the outer face of the inner skin of hollow wall with 1:3 cement and sand mixture and seal with two coats bitumen emulsion waterproofing coating:</u></b>				
170	On walls	m2	25		
	<b><u>Brickwork reinforcement:</u></b>				
171	150mm Wide reinforcement built in horizontally	m	118		
	<b><u>Agate Satin FBX clay face brickwork, manufactured in accordance with SANS 227:2007, including pointing with 6mm square recessed horizontal and vertical joints as the work proceeds:</u></b>				
172	Extra over brickwork for face brickwork	m2	25		
173	Extra over brickwork for brick-on-edge header course lintol pointed on face and 230mm soffit	m	1		
	<b><u>Turning pieces:</u></b>				
174	230mm Wide turning piece to lintols, etc.	m	1		
	<b><u>One layer of 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:</u></b>				
175	Under surface beds	m2	5		
	<b><u>One layer of 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B):</u></b>				
176	In walls, under cills, etc.	m2	1		
	<b><u>4mm Thick Derbigum SP or other approved waterproofing:</u></b>				
177	On flat sloping surface of screed	m2	7		
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	<b><u>Union or other approved:</u></b>				
178	N888 Profile cylinder security gate lock with retractable latch and safety pin including fitment to door, cut outs, etc.	No	1		
	<b><u>Dorma or other approved:</u></b>				
179	DDC106601 GMK 66mm Ten pin Euro profile double cylinder grand master key (Satin Nickel)	No	1		
	<b><u>Bitcon or other approved hot dip galvanised transformer room door complete with frame and all hardware, including building in as required:</u></b>				
180	Type AVA fully louvred with and including two heavy duty hinges and pull handle, size 815 x 2030mm high	No	1		
	<b><u>3:1 Cement screed (SANS 2001) steel trowelled on concrete:</u></b>				
181	40mm Thick (average) on screed to falls	m2	7		
	<b><u>Untinted granolithic on concrete:</u></b>				
182	30mm Thick on floors and landings	m2	5		
	<b><u>4:1 Cement plaster (SANS 2001) wood floated on brickwork:</u></b>				
183	On walls	m2	18		
	<b><u>Prepare and apply one coat Plascon Professional Gypsum and Plaster Primer (PP700) and two coats Plascon Professional Hygiene Low Sheen paint on:</u></b>				
184	Plastered walls	m2	18		
	<b><u>Clean down galvanised surfaces thoroughly with galvanised iron cleaner, apply one coat calcium plumbate primer and two coats eggshell enamel paint on:</u></b>				
185	Louvre doors (both sides measured)	m2	3		
	<b><u>STORMWATER RETICULATION/CHANNELS</u></b>				
	<b><u>Open face excavation over sloping site:</u></b>				
186	Open face excavation to reduce levels under stormwater channel, etc. and including creating natural earth berm overall size 2000 x 400mm high with sloping sides	m3	36		
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<b><u>Earth filling supplied by the Contractor:</u></b>					
187	Over site of G7 natural gravel material compacted to a minimum of 95% Mod AASHTO dry density in 150mm layers	m3	30		
188	Over site of G6 natural gravel material compacted to a minimum of 93% Mod AASHTO dry density in 150mm layers	m3	8		
<b><u>Compaction of surfaces:</u></b>					
189	Compaction of ground surface under concrete areas, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to a minimum of 90% Mod AASHTO dry density	m2	255		
<b><u>One layer of 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:</u></b>					
190	Under stormwater channels and speaders	m2	339		
<b><u>25MPa/19mm Unreinforced concrete:</u></b>					
191	900 x 175mm Open concrete stormwater channel with 75mm deep channel cast in 1,5m alternative panels on 150mm subbase material (elsewhere measured), compacted to a minimum of 93% Mod AASHTO dry density, including all necessary excavations, formwork, compaction, grading, carting away, etc.	m	221		
192	Extra over 900 x 175mm stormwater channel for angle, intersection, end, dressing into sides of catchpits, etc.	No	36		
<b><u>25MPa/19mm Reinforced concrete:</u></b>					
193	3000 x 150mm Open trafficable concrete stormwater dished channel with Type 311 fabric reinforcement, cast in 3m alternative panels on 150mm subbase material (elsewhere measured) compacted to a minimum of 93% Mod AASHTO dry density, including all necessary excavations, formwork, compaction, grading, carting away, etc.	m	29		
194	Extra over 3000 x 150mm stormwater channel for angle, intersection, end, dressing into sides of catchpits, etc.	No	2		
<b><u>Expansion joints with bitumen impregnated softboard between vertical concrete or brick surfaces:</u></b>					
195	10mm Wide joint not exceeding 300mm high	m	210		
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	<b><u>Approved bitumen sealing compound including backing cord, bond breaker, primer, etc.:</u></b>				
196	10 x 10mm In vertical expansion joint including raking out expansion joint filler as necessary	m	210		
	<b><u>Reinforced concrete Class 50D piping in accordance with SANS 1200:</u></b>				
197	300mm Pipe laid in and including trenches not exceeding 1m deep, including excavations, backfilling, etc.	m	6		
198	375mm Pipe laid in and including trenches not exceeding 1m deep, including excavations, backfilling, etc.	m	61		
199	Ditto exceeding 1m not exceeding 2m deep, including excavations, backfilling, etc.	m	39		
	<b><u>Stormwater manholes:</u></b>				
200	Stormwater grid inlet manhole size 1340 x 1340mm not exceeding 1m deep to invert, consisting of reinforced concrete (30MPa/19mm) base with Type 311 fabric reinforcement, 150 mm thick projecting 150mm all round, one brick walls plastered internally, 200mm thick cover slab on top tapered and rebated for and fitted with 380 x 380mm grating and frame to SANS 2001, including benching, excavations, backfilling, etc.	No	1		
201	Stormwater grid inlet manhole size 1340 x 1840mm exceeding 1m and not exceeding 2m deep to invert, consisting of reinforced concrete (30MPa/19mm) base with Type 311 fabric reinforcement, 150 mm thick projecting 150mm all round, one brick walls plastered internally, 200mm thick cover slab on top tapered and rebated for and fitted with 380 x 380mm grating and frame to SANS 2001, including benching, excavations, backfilling, etc.	No	3		
202	Stormwater grid inlet manhole size 1340 x 1840mm exceeding 2m and not exceeding 3m deep to invert, consisting of reinforced concrete (30MPa/19mm) base with Type 311 fabric reinforcement, 150 mm thick projecting 150mm all round, one brick walls plastered internally, 200mm thick cover slab on top tapered and rebated for and fitted with 380 x 380mm grating and frame to SANS 2001, including benching, excavations, backfilling, etc.	No	2		
	<b>Carried to Collection</b>				
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203	Stormwater grid inlet manhole size 1340 x 1840mm exceeding 4m and not exceeding 5m deep to invert, consisting of reinforced concrete (30MPa/19mm) base with Type 311 fabric reinforcement, 150 mm thick projecting 150mm all round, one brick walls plastered internally, 200mm thick cover slab on top tapered and rebated for and fitted with 380 x 380mm grating and frame to SANS 2001, including benching, excavations, backfilling, etc.	No	1		
204	Stormwater grid inlet manhole size 1340 x 1840mm exceeding 1m and not exceeding 2m deep to invert, consisting of reinforced concrete (30MPa/19mm) base with Type 311 fabric reinforcement, 150 mm thick projecting 150mm all round, one brick walls plastered internally, 200mm thick cover slab on top tapered and rebated for and fitted with 450 x 450mm grating and frame to SANS 2001, including benching, excavations, backfilling, etc.	No	2		
205	Stormwater manhole size 1740 x 1740mm not exceeding 1m deep to invert, consisting of reinforced concrete (30MPa/19mm) base with Type 617 fabric reinforcement, 150 mm thick projecting 150mm all round, one brick walls plastered internally, 150mm thick cover slab with Type 888 mesh reinforcement on top tapered and rebated for and fitted with 900 x 900mm Fiberite Type FR90 Class A15 cover and frame to SANS 50124, including benching, excavations, backfilling, etc.	No	2		
	<b>Concrete inlet box:</b>				
206	Depressed inlet box size 1560 x 1560mm overall x 1000mm high comprising 150mm thick reinforced concrete (20MPa/19mm) base with Type 245 fabric reinforcement and 220mm brick sides with 10mm plaster on visible surfaces including concrete benching to sides and inlet for 300mm stormwater pipe with 150mm thick cover slab to full area with Type 311 fabric reinforcement on top tapered including all necessary excavating, compaction to base, carting away, etc.	No	1		
	<b>Stormwater wingwalls:</b>				
207	Stormwater wing wall 980mm wide at stormwater inlet for 375mm stormwater pipe (elsewhere measured), projecting for a length of 1500mm to extreme width of 2500mm wide, comprising of 125mm thick reinforced (20MPa/19mm) concrete base with Type 245 fabric reinforcement with 200 x 200mm concrete edge to base at extreme side and 220mm brick wing walls on sides for a length of 1500mm, tapering down on two sides from 750mm to 200mm high complete with soldier course brickwork to top of inlet and wing walls with 10mm plaster on visible surfaces including all necessary excavating, compaction to base, carting away, etc.	No	2		
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208	Stormwater wing wall 1960mm wide at stormwater inlet for two 375mm stormwater pipes (elsewhere measured), projecting for a length of 1500mm to extreme width of 5000mm wide, comprising of 125mm thick reinforced (20MPa/19mm) concrete base with Type 245 fabric reinforcement with 200 x 200mm concrete edge to base at extreme side and 220mm brick wing walls on sides for a length of 1500mm, tapering down on two sides from 750mm to 200mm high complete with soldier course brickwork to top of inlet and wing walls with 10mm plaster on visible surfaces including all necessary excavating, compaction to base, carting away, etc.	No	2		
	<b><u>Concrete stone pitching:</u></b>				
209	Stormwater grouted stone pitching size 3000 x 3000mm, comprising of 150mm thick unreinforced concrete (15MPa/19mm) base and bedding 200mm diameter stones in concrete spaced at 200mm centre spacings to falls, including brushing concrete between stones	No	2		
	<b><u>Gabion Cages:</u></b>				
210	Gabion cage size 3000 x 1000 x 500mm deep using 50mm galvanised diamond mesh stitched closed, lined with Bidim A14 Geotextile fabric and filled with 100mm stones including necessary excavating, carting away, etc.	No	3		
211	Gabion cage size 4000 x 1000 x 500mm deep using 50mm galvanised diamond mesh stitched closed, lined with Bidim A14 Geotextile fabric and filled with 100mm stones including necessary excavating, carting away, etc.	No	2		
212	Reno mattress cage size 3000 x 1000 x 300mm deep using 50mm double twisted galvanised diamond mesh stitched closed, lined with Bidim A14 Geotextile fabric and filled with 100mm stones including necessary excavating, carting away, etc.	No	1		
	<b><u>Sundries:</u></b>				
213	Stormwater channel comprising reno mattresses stacked along full length to create stormwater channel each cage size 6000 x 2000 x 170mm deep using 50mm galvanised diamond mesh stitched closed, lined with Bidim A14 Geotextile fabric and filled with 100mm stones including necessary excavating, carting away, etc.	No	34		
	<b><u>Testing:</u></b>				
214	Allow for testing all external stormwater reticulation piping and elements			Item	
	<b><u>SOIL DRAINAGE</u></b>				
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<b><u>PVC Class 51 gray piping in accordance with SANS 791:</u></b>					
215	110mm Pipe vertically or ramped to cleaning eyes, etc.	m	56		
216	110mm Pipe laid in and including trenches not exceeding 1m deep	m	162		
<b><u>Extra over PVC piping for:</u></b>					
217	110mm Bend	No	57		
218	110mm Tee	No	33		
<b><u>Extra over excavation in earth for excavation in:</u></b>					
219	Soft rock	m3	5		
220	Hard rock	m3	3		
<b><u>Soak away:</u></b>					
221	Herringbone drain 5000mm wide x 6000mm long x 1000mm deep comprising clean granular stone (grading 20 - 75mm) in filling to bottom of drain to a depth of 850mm; the stone wrapped in Kaymat U14 geofabric filter blanket, 110mm uPVC slotted agricultural pipe 4500mm long with four side pipes on each side, each 3000mm long with inspection pipe outlet at end, four y-junctions, etc. Pipe slotted at intervals. Including excavation, backfilling with approved material from excavations to a depth of 850mm, complete with inspection pipe	No	3		
<b><u>Grease trap:</u></b>					
222	Grease trap manhole size 2010 x 1940mm not exceeding 1m deep to invert, consisting of reinforced concrete (30MPa/19mm) base with Type 617 fabric reinforcement, 150 mm thick projecting 100mm all round, one brick walls plastered internally to form outer structure with half brick wall plastered both sides to form two equal compartments with 160mm thick cover slab with Type 888 fabric reinforcement on top tapered and rebated for and fitted with two 450 x 600mm Saint-Gobain Product Code 2060 Type 14C cover and frame to SABS 558, including benching, excavations, backfilling, etc.	No	2		
<b><u>Sundries:</u></b>					
223	Unreinforced concrete (15MPa/19mm) encasing around 110mm horizontal drain pipe including all necessary formwork	m	2		
224	Unreinforced concrete (15MPa/19mm) encasing around 110mm vertical or raking drain pipe to cleaning eye including all necessary formwork	m	5		
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225	110mm Gully not exceeding 1m deep including approved bedding, backfilling and compaction	No	7	
226	ABC cast iron straight or bent cleaning eye with removable cast iron cover jointed to 110mm uPVC pipe and set in and including unreinforced concrete (15MPa/19mm) surround with exposed surfaces trowelled smooth	No	28	
	<b>Testing:</b>			
227	Testing drainage pipe system		Item	
	<b><u>WATER SUPPLIES IN GROUND</u></b>			
	<b><u>Class 6 HDPE pressure pipes in accordance with SANS 4427, with spigots and sockets including all straight couplings, cutting and waste, etc.:</u></b>			
228	25mm Pipe laid in and including trenches not exceeding 1m deep	m	221	
229	50mm Ditto	m	218	
	<b><u>Extra on HDPE piping for the following Class 6 HDPE fittings:</u></b>			
230	25mm Fittings	No	26	
231	50mm Float control valve, complete with float	No	2	
232	50 x 25mm Reducer	No	1	
233	50mm Elbow	No	2	
234	50mm Equal tee	No	1	
235	50mm Bend	No	9	
236	50 x 25mm Reducing tee	No	4	
	<b><u>Taps, valves, etc.:</u></b>			
237	25mm Fullway gate valve with flange adaptors both sides	No	9	
238	25mm Non-return valve with flange adaptors both sides	No	4	
239	50mm Non-return valve with flange adaptors both sides	No	2	
	<b>Carried to Collection</b>			
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<b><u>Old World Concrete or other approved:</u></b>				
240	Civic drinking fountain including setting up in position, connecting to pipework, excavations, etc. size 320mm diameter x 1200mm high	No	1	
<b><u>Sundries:</u></b>				
241	Stopcock box for valves not exceeding 1m deep, consisting of unreinforced concrete (25MPa/19mm) base 100mm thick, one brick walls all around, precast concrete cover slab on top, rebated for and fitted with and including 300 x 300mm cast iron type 11A stopcock box cover and frame complete with locking system, size 300 x 300mm internally including excavations, backfilling, etc.	No	17	
<b><u>Testing:</u></b>				
242	Testing, operational manual and training for water pipe system		Item	
<b><u>ELEVATED WATER TANK AND STAND</u></b>				
<b><u>Excavation in earth not exceeding 2m deep:</u></b>				
243	Bases	m3	4	
<b><u>Extra over trench and hole excavations in earth for excavation in:</u></b>				
244	Soft rock	m3	1	
245	Hard rock	m3	0.4	
<b><u>Risk of collapse of excavations:</u></b>				
246	Sides of trench and hole excavations not exceeding 1,5m deep	m2	16	
<b><u>Keeping excavations free of water:</u></b>				
247	Keeping excavations free of all water other than subterranean water		Item	
<b><u>Earth filling obtained from the excavations and/or prescribed stockpiles on site compacted to a minimum of 95% Mod AASHTO dry density:</u></b>				
248	Backfilling to trenches, holes, etc.	m3	1	
<b><u>Blinding founding material supplied by the Contractor:</u></b>				
249	75mm Thick under concrete	m2	4	
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	<b><u>Extra over all excavations for carting off site to a location to be identified by the Contractor:</u></b>				
250	Surplus material from excavations	m3	3		
	<b><u>25MPa/19mm Reinforced concrete cast against excavated surfaces:</u></b>				
251	Bases	m3	1		
	<b><u>25MPa/19mm Reinforced concrete:</u></b>				
252	Stub columns	m3	0.3		
	<b><u>Concrete tests:</u></b>				
253	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes	No	2		
	<b><u>Rough formwork to sides:</u></b>				
254	Stub columns and propping up not exceeding 3,5m high above bearing level	m2	4		
	<b><u>Mild steel reinforcement to structural concrete work:</u></b>				
255	8mm Diameter bars	t	0.01		
	<b><u>High tensile steel reinforcement to structural concrete work:</u></b>				
256	16mm Diameter bars	t	0.40		
257	12mm Diameter bars	t	0.01		
	<b><u>Galvanised hoop iron cramps, ties, etc.:</u></b>				
258	3,4mm Wire tie secured around 10 000 litre tank (elsewhere measured)	m	7		
	<b><u>30MPa Non-shrink grout:</u></b>				
259	Bedding approximately 30mm thick under 290 x 290mm baseplate including splayed edges all round (baseplate elsewhere measured)	No	4		
	<b><u>Wrot softwood (Grade V5):</u></b>				
260	50 x 228mm Supports treated with and including carbolinieum and bolted to IPE 160 beams (elsewhere measured) with and including M6 round head bolts at 4 intersections	m	38		
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**Steelwork:**

All steelwork to be Grade S355JR

Workshop drawings must be submitted to the Engineer for approval **before** commencement of any manufacturing of steelwork.

No welding on site will be permitted.

**Descriptions:**

Descriptions of bolts shall be deemed to include nuts and washers.

Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete.

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.

**Hot dip galvanised steel welded columns, beams, etc. in components to water tank stand:**

261	60 x 60 x 5mm x 4,57kg/m Angle section columns	t	0.08
262	70 x 70 x 6mm x 6,38kg/m Angle section columns	t	0.14
263	50 x 50 x 5mm x 3,77kg/m Angle section beams	t	0.14
264	60 x 60 x 6mm x 5,42kg/m Angle section beams	t	0.09
265	160 x 83 x 5mm x 15,8kg/m I-section beams	t	0.28
266	60 x 60 x 5mm x 4,56kg/m Angle section railing	t	0.06
267	60 x 60 x 6mm x 5,42kg/m Angle section cross bracing	t	0.34

**Hot dip galvanised steel bolts to columns, beams, etc.:**

268	High tensile bolts (Grade 8.8)	t	0.10
269	M18 Grade 4.8 holding down bolt 320mm long screwed one end with lock nut and flat washer complete	No	16
270	290 x 290 x 10mm Thick baseplate welded to bottom of steel stanchion, four times holed for bolt (elsewhere measured)	No	4

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<b><u>Hot dip galvanised steel framed and welded cat ladder size 718 x 640mm x 9,64m high to water tank tower:</u></b>					
271	70 x 70 x 6mm x 6,38kg/m Angle section stringer	t	0.11		
272	50 x 8mm Flat section vertical	kg	27		
273	50 x 8mm Flat section hoop	kg	45		
274	60 x 8mm Flat section horizontal	kg	182		
275	20mm Diameter semi-circular rung 640mm girth, with two ends welded to stringers	No	33		
<b><u>Approved rainwater tank:</u></b>					
276	10 000 Litre polyethylene rotomoulded vertical water storage tank complete with lid including setting up in position on elevated tank stand (elsewhere measured) approximately 6000mm above ground level, securely tying down with galvanised wire (elsewhere measured) (Note - tank to be filled with water before Practical Completion) complete	No	1		
277	Outlet union for 32mm steel pipe including hole through tank	No	2		
<b><u>Galvanised steel pipes (Class 16):</u></b>					
278	32mm Pipe including holderbats at 2m centres	m	3		
279	50mm Ditto	m	12		
280	50mm Pipe laid in and including trenches not exceeding 1m deep	m	1		
<b><u>Extra over galvanised mild steel pipes for steel fittings:</u></b>					
281	32mm Float control valve, complete with float	No	1		
282	32mm Bend	No	2		
283	50mm Bend	No	2		
284	50mm One way valve	No	1		
285	50 x 32mm Reducer	No	2		
286	50mm Steel to HDPE adapter	No	2		
287	50mm Stopcock	No	1		
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	<b><u>Closed cell foam lagging:</u></b>		
288	Outerwrap on 50mm diameter steel pipes	m	12
	<b><u>HOT DIP GALVANISED STEEL WATER PUMP ENCLOSURE</u></b>		
	<b><u>Water pump enclosure complete including securely bolting to floor:</u></b>		
289	Framed and welded water pump enclosure (to enclose water pump - elsewhere measured) formed of 50 x 50 x 3mm thick hollow section outer framing to front, top and all sides, all mitred and welded at intersections, all sides filled in with and including LF16/1540 flattened mesh panels, welded to outer framing along edges, top formed of 0,8mm thick corrugated iron roof sheeting fixed sloping with tamperproof flathead thru-bolts to 50 x 50 x 3mm thick hollow section outer frame with roof area 1800 x 3750mm, gate formed of 50 x 50 x 3mm thick hollow section outer framing, mitred and welded all around, filled in with and including flattened mesh as described for panels, cutout for 100mm horizontal sliding bolt and keep, two 100mm long hinges welded to framing and gate, supplied with 50mm brass padlock and two keys, size overall 1300 x 3200 x 1687mm high bolted with M8 50mm anchor bolts at 600mm centres to concrete plinth (elsewhere measured)	No	1
	<b><u>Testing:</u></b>		
290	Allow for testing all water and other piping to water tower supply and feeds		Item
	<b><u>RAINWATER TANKS AND STANDS</u></b>		
	<b><u>Excavation in earth not exceeding 2m deep:</u></b>		
291	Trenches	m3	11
	<b><u>Extra over trench and hole excavations in earth for excavation in:</u></b>		
292	Soft rock	m3	2
293	Hard rock	m3	1
	<b><u>Risk of collapse of excavations:</u></b>		
294	Sides of trench and hole excavations not exceeding 1,5m deep	m2	23

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	<b><u>Earth filling obtained from the excavations and/or prescribed stockpiles on site compacted to a minimum of 93% Mod AASHTO dry density:</u></b>				
295	Backfilling to trenches, holes, etc.	m3	7		
	<b><u>Compaction of surfaces:</u></b>				
296	Under floors, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to a minimum of 95% Mod AASHTO dry density	m2	21		
	<b><u>25MPa/19mm Reinforced concrete cast against excavated surfaces:</u></b>				
297	Strip footings	m3	6		
	<b><u>25MPa/19mm Reinforced concrete:</u></b>				
298	Surface beds	m3	2		
	<b><u>Finishing top surfaces of concrete smooth with a wood float:</u></b>				
299	Surface beds, slabs, etc. to falls	m2	24		
	<b><u>Rough formwork to sides:</u></b>				
300	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	48		
301	Extra over for 20 x 20mm chamfer to top edge	m	48		
	<b><u>Mild steel reinforcement to structural concrete work:</u></b>				
302	12mm Diameter bars	t	0.36		
303	10mm Diameter bars	t	0.16		
	<b><u>Fabric reinforcement:</u></b>				
304	Type 311 fabric reinforcement in concrete surface beds, etc.	m2	24		
	<b><u>Brickwork of NFX bricks (14MPa nominal compressive strength) in Class II mortar:</u></b>				
305	One brick wall in two half brick skins tied together with and including galvanised wire ties	m2	40		
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	<b><u>Brickwork reinforcement:</u></b>				
306	150mm Wide reinforcement built in horizontally	m	160		
	<b><u>Galvanised hoop iron cramps, ties, etc.:</u></b>				
307	50 x 3mm Thick tie secured around water tank (elsewhere measured) with two ends securely welded to post (elsewhere measured)	m	24		
	<b><u>Agate Satin FBX clay face brickwork, manufactured in accordance with SANS 227:2007, including pointing with 6mm square recessed horizontal and vertical joints as the work proceeds:</u></b>				
308	Extra over brickwork for face brickwork	m2	48		
	<b><u>One layer of 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:</u></b>				
309	Under surface beds	m2	24		
	<b><u>Hot dip galvanised steel posts and plates:</u></b>				
310	75 x 3mm Thick circular hollow section post 1200mm long with and including 50 x 100 x 5mm thick plate welded to circular hollow section, with and including 150 x 150 x 5mm thick baseplate welded to post all round and four times holed for and including 10mm diameter bolts, 100mm long including fixing bottom end to concrete	No	12		
	<b><u>Approved rainwater tanks:</u></b>				
311	5 000 Litre polyethylene rotomoulded vertical water storage tank complete with lid, fitted with and including 15mm brass bibtap (Type 108LK15) with suitable adaptor and setting in position on tank base (elsewhere measured), securely tying down with strap (elsewhere measured) (Note - tank to be filled with water before Practical Completion) including lettering "School name" to be applied in black spray paint/embossed onto side of tank	No	6		
312	Hole through top of tank lid for 100mm diameter pipe	No	6		
	<b><u>Superhead rainwater tank filter or other approved:</u></b>				
313	PVC filter complete with 110mm adaptor, first flush diverter, adjustable drainage plug, stainless steel leave screen and insect screen mounted to water tank (elsewhere measured)	No	6		
	<b><u>FLAGPOLES &amp; PLAQUES</u></b>				
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<b><u>Excavation in earth not exceeding 2m deep:</u></b>				
314	Bases	m3	1	
<b><u>Risk of collapse of excavations:</u></b>				
315	Sides of trench and hole excavations not exceeding 1,5m deep	m2	3	
<b><u>15MPa/19mm Unreinforced concrete cast against excavated surfaces:</u></b>				
316	Bases	m3	1	
<b><u>Flagpoles:</u></b>				
317	Flagcraft or other approved hot dip galvanised steel white powder coated fixed flag pole in two parts, one lower part 6m long formed of 101mm diameter x 2mm thick, upper part 3m long formed of 76mm diameter x 2mm thick, all connected together; erected vertically with hinged base and galvanised foundation cage, RSA flag complete with all fittings including all ropes, pulleys, cleats, etc. in accordance with the manufacturer's instructions	No	2	
318	Provide the amount of R10 000.00 (Ten Thousand Rand) for Plaque including fixing in position on site		Item	10,000.00
<b><u>SAND PIT AND UNDERCOVER PLAY AREA</u></b>				
<b><u>Excavation in earth not exceeding 2m deep in:</u></b>				
319	Bases	m3	1	
320	Trenches	m3	8	
321	Foundation beams	m3	4	
<b><u>Extra over trench and hole excavations in earth for excavation in:</u></b>				
322	Soft rock	m3	2	
323	Hard rock	m3	1	
<b><u>Extra over all excavations for carting off site to a location to be identified by the Contractor:</u></b>				
324	Surplus material from excavations	m3	14	
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	<b><u>Risk of collapse of excavations:</u></b>			
325	Sides of trench and hole excavations not exceeding 1,5m deep	m2	35	
	<b><u>Keeping excavations free of water:</u></b>			
326	Keeping excavations free of all water other than subterranean water		Item	
	<b><u>Coarse river sand filling:</u></b>			
327	Under surface beds	m3	1	
328	In pit	m3	7	
	<b><u>Earth filling obtained from the excavations and/or prescribed stockpiles on site compacted to a minimum of 95% Mod AASHTO dry density:</u></b>			
329	Backfilling to trenches, holes, etc.	m3	8	
	<b><u>Earth filling supplied by the Contractor under floors, etc.:</u></b>			
330	Over site of G7 natural material compacted to a minimum of 93% Mod AASHTO dry density in 150mm layers under floors	m3	2	
331	Over site of G5 natural gravel material compacted to a minimum of 95% Mod AASHTO dry density in 150mm layers under floors	m3	2	
	<b><u>Prescribed density tests on filling:</u></b>			
332	"Modified AASHTO Density" test	No	2	
	<b><u>25MPa/19mm Reinforced concrete cast against excavated surfaces:</u></b>			
333	Strip footings	m3	3	
334	Ground beams	m3	2	
335	Bases	m3	0.2	
	<b><u>25MPa/19mm Reinforced concrete:</u></b>			
336	Surface beds	m3	1	
	<b><u>Concrete tests:</u></b>			
337	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes	No	4	
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<b><u>Finishing top surfaces of concrete with broom/brush finish:</u></b>			
338	Surface beds, slabs, etc. to falls	m2	13
<b><u>Rough formwork to sides:</u></b>			
339	Foundation beams	m2	6
<b><u>Saw cut joints:</u></b>			
340	6 x 30mm In top of concrete	m	4
341	Ream out 6mm wide saw cut joint to 8mm width for a depth of 15mm	m	4
<b><u>Expansion joints with bitumen impregnated softboard between vertical concrete or brick surfaces:</u></b>			
342	20mm Wide joint not exceeding 300mm wide	m	14
<b><u>Mild steel reinforcement to structural concrete work:</u></b>			
343	10mm Diameter bars	t	0.22
<b><u>High tensile steel reinforcement to structural concrete work:</u></b>			
344	12mm Diameter bars	t	0.04
345	10mm Diameter bars	t	0.09
<b><u>Fabric reinforcement:</u></b>			
346	Type 245 fabric reinforcement in concrete surface beds, etc.	m2	13
<b><u>Brickwork of NFX bricks (14MPa nominal compressive strength) in Class II mortar:</u></b>			
347	Hollow pier with 120 x 120mm cavity filled in with and including reinforced concrete (25MPa/19mm)	m3	0.3
348	One brick wall	m2	7
349	Ditto circular on plan	m2	7
<b><u>Brickwork of NFP bricks in Class II mortar:</u></b>			
350	Hollow pier with 120 x 120mm cavity filled in with and including reinforced concrete (25MPa/19mm)	m3	1.1
351	Half brick wall in beamfilling	m2	4

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352	One brick wall	m2	15	
353	Ditto circular on plan	m2	14	
	<b><u>Brickwork reinforcement:</u></b>			
354	75mm Wide reinforcement built in horizontally	m	46	
355	150mm Wide reinforcement built in horizontally	m	195	
	<b><u>Prestressed fabricated lintols including necessary temporary supports:</u></b>			
356	110 x 70mm Lintol in lengths not exceeding 3m	m	18	
	<b><u>Brick-on-edge header course copings of Golden Wheat Travertine Imperial FBX clay face bricks pointed with 6mm square recessed horizontal and vertical joints as the work proceeds:</u></b>			
357	220mm Wide bullnose edged face brick-on-edge roller course to edge of surface beds/walkways	m	9	
358	Ditto circular on plan	m	6	
	<b><u>One layer of 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:</u></b>			
359	Under surface beds	m2	14	
	<b><u>0,8mm Thick Safintra Zincal AZ150 or other approved interlocking aluminium-zinc roof sheeting and accessories, fixed to timber purlins (elsewhere measured) at 1050mm centres with concealed fixing, pierce-fixing through each sheet under the flashings, cappings or along the top of the sheets (for low pitch roofs), all in accordance with the manufacturer's instructions:</u></b>			
360	Roof covering with pitch not exceeding 25 degrees	m2	28	
361	Narrow or broad flute closers	m	35	
362	Hip capping to suit roof profile	m	14	
363	Extra on last for four way intersection between hips	No	1	
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<b><u>0.9mm Thick Watertite or other approved seamless aluminium gutters and rainwater pipes with ColourTechG4 finish to Marble White colour, including fixing with heavy duty brackets in accordance with the manufacturer's instructions:</u></b>					
364	140 x 150mm Ogee eaves gutter	m	21		
365	Extra over gutter for angle	No	4		
366	Ditto for outlet to suit 100 x 75mm rainwater pipe	No	2		
367	100 x 75mm Rainwater pipe complete with all brackets, etc.	m	7		
368	Extra over rainwater pipe for bend or shoe	No	2		
369	Ditto for eaves offset to 600mm projection	No	2		
<b><u>Prefabricated timber (22 degree pitch) roof construction complete with horizontal tie beam at 1200mm centres, 800mm eaves projection all round, including 50 x 76mm sawn softwood purlins at 1050mm centres (with and including fixing to rafters with hurricane clips), runners, bracing hips, cleats, etc. supplied and fixed complete:</u></b>					
370	Roof construction to double pitch roof size 4,00 x 4,00 x 1,20m high, including four hips, jack rafters, permanent bracing, etc.	No	1		
<b><u>Sawn softwood:</u></b>					
371	38 x 38mm Batten nailed to rafter ends	m	21		
372	38 x 114mm Wall plate	m	15		
<b><u>Pressed fibre cement:</u></b>					
373	12 x 225mm Fascia fixed vertically to battens (elsewhere measured) with brass screws	m	21		
<b><u>Timber gumpoles:</u></b>					
374	100mm Diameter treated gumpole beam for roof support	m	9		
<b><u>Fencing droppers:</u></b>					
375	50mm Diameter Tanalith treated timber droppers 2,40m long, laid side by side in sloping arrangement as roof cover ('latte'), fixed to timber beam member (elsewhere measured) with 10mm diameter hot dip galvanised U-bolts spaced in a staggered layout at 70mm centres	m2	36		
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	<b><u>Galvanised hoop iron ties, cramps, etc.:</u></b>				
376	30 x 1,6mm Cramp 1000mm long, one end built into brickwork and other end wrapped around timber gumpole beam (elsewhere measured)	No	4		
	<b><u>Hot dip galvanised posts of 2mm thickness:</u></b>				
377	60mm Diameter galvanised steel intermediate fencing post, 1900mm long fitted with a pressed steel mushroom cap, post fixed to brickwork	No	2		
	<b><u>Galvanised steel (Class A) fencing:</u></b>				
378	Fencing formed of 50 x 100 x 2,5mm diameter galvanised weldmesh 1800mm high with vertical wires facing outwards, secured with Howring clips or 1,6mm galvanised binding wire at 300 mm centres to top and bottom straining wires at 700 mm centres to five intermediate straining wires (straining wires elsewhere measured) including 15mm holes through posts	m	2		
379	Six strands of 4mm galvanised straining wires secured to fencing posts with doubled 2mm galvanised wire inserted through hole in post and turned a minimum of four turns around straining wire and attached to straining frame at one end with not less than four turns and the other end to straining bolts (elsewhere measured)	m	2		
	<b><u>Sundries:</u></b>				
380	12mm Diameter galvanised mild steel straining eye bolt with hook, threaded portion and two nuts and washers, including hole through post	No	4		
	<b><u>5:1 Cement plaster (SANS 2001) wood floated on brickwork:</u></b>				
381	On walls	m2	42		
382	Ditto circular on plan	m2	25		
383	On narrow widths	m2	11		
	<b><u>Prepare and apply two coats Plascon Carbolineum on:</u></b>				
384	Timber trusses	m2	20		
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385	<b><u>Prepare and apply one coat Plascon Professional Gypsum and Plaster Primer (PP700) and two coats Plascon Professional Hygiene Low Sheen paint on:</u></b>	m2	77		
386	<b><u>Prepare and prime nail heads, prime timber coverstrips with wood primer, apply one coat plaster primer, one universal undercoat and two coats exterior quality acrylic emulsion paint on:</u></b> Fibre cement fascias and barge boards not exceeding 300mm girth	m	21		
	<b><u>SECURITY FENCING AND GATES (PERIMETER, GRADE R AND AROUND ELEVATED TANK)</u></b>				
	Allowance shall be made as required to excavate areas that are too high and to fill depressions with approved filling, carted on where necessary and well compacted prior to erection of fencing posts				
	<b><u>Clear view type fencing system and posts erected complete with all components as indicated in strict accordance with the manufacturer's instructions:</u></b>				
387	2,5mm Thick x 100mm high hot dip galvanised serrated top rail with tooth spikes (marine fusion bond coating), fitted to top of fencing or gates (elsewhere measured) with M8 x 30 bolts, shear nuts and stainless steel washers	m	406		
388	1800mm High Econo Mesh hot dip galvanised (marine fusion bond coating) high density mesh panel fencing, formed of 4mm diameter horizontal and 3,5mm diameter vertical high tensile wires with aperture size 76,2 x 50mm and reinforcing V-section ribs. Panels with a maximum width of 3305mm (or as determined on site) and laterally strengthened by 4 x 50mm deep V-profiled horizontal stiffener bends to ensure sufficient rigidity, complete with 75mm 70 degree flanges along sides, top and toe and secured to fencing posts (elsewhere measured). Prices to allow for possible shortening and additional vertical cutting/framing of shortened panels, if necessary	m	494		
389	85 - 45mm Tapering hot dip galvanised (marine fusion bond coating - acid modified) locking post 2400mm high, sealed with UV stabilized polymer cap, including locking recess mechanism with sealed end caps and 30 x 250mm long angle section base anchors, complete with required vandal resistant bolts and clamping plates, nuts and washers for fixing to panels (elsewhere measured) and embedded and including 400 x 400 x 600mm deep unreinforced concrete (20MPa/19mm) base, excavations, filling, etc.	No	149		
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	<b><u>Hot dip galvanised steel gate:</u></b>			
390	<p>Pedestrian gate consisting of 50 x 50 x 2mm hollow section outer framing and one mullion, all mitred and welded at intersections, internal 30 x 4mm flat section welded onto inside of all outer framing, one cut-out size 120 x 200mm high formed of outer framing and flat section as described above, filled in with 3,5mm diameter horizontal and vertical high tensile wires, galvanised with marine fusion bond coating with aperture size 76,2 x 50mm and reinforcing V-section ribs, cut to size and secured tautly around all edges to flat section with 4mm diameter self tapping screws 30mm long at 100mm centres all around, complete with 500 x 800mm high unreinforced concrete (15MPa/19mm) beam, with gate post similar to taper locking post (elsewhere described) complete with 300 x 300 x 5mm baseplate cast into concrete base complete with and including all excavations, filling, etc. one heavy duty brass padlock, etc. overall size 1000 x 1800mm high</p>	No	1	
	<b><u>JUNGLE GYM</u></b>			
	<b><u>Main 100/125mm Tanalith treated poles and stays are to be set in concrete minimum 600mm deep, with bottom ends of poles protruding through concrete base to allow water to drain. 10mm Stainless steel threaded bars, stainless steel flat washers and nuts are to be used to assemble the structure:</u></b>			
391	<p>Jungle Gym with raised platform, size 1,8 x 1,8m, 95% UV protected shadecloth roof, wooden hand railings on three sides, nylon cargo net, 3mm thick glassfibre slide fixed to platform, two tyre swings secured with suitable thickness galvanised chain and eye bolt system, 3600mm long suspension bridge, installed complete by an approved manufacturer</p>	No	1	
	<b><u>BENCHES</u></b>			
	<b><u>Old World Concrete or other approved:</u></b>			
392	<p>Precast concrete Erica bench finished smooth on exposed surfaces including bedding, jointing and pointing, etc. size 1200mm long x 500mm wide x 500mm high</p>	No	5	
393	<p>Ditto size 1600mm long x 500mm wide x 500mm high</p>	No	2	
	<b><u>LANDSCAPING</u></b>			
	<p>All landscaping areas/sections (grassed areas and landscaping detail) must be maintained throughout the whole project period. The whole of the landscaping element must, additionally, be maintained for a period of six (6) months after Practical Completion of the whole project has been achieved.</p>			
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**Cultivation and preparation of areas to be planted:**

Do not proceed with installation of topsoil and planting mix until all work has been completed. Till the sub-soil into the bottom layer of topsoil or planting mix, loosen soil of subgrade to depth of 50 - 75mm. Spread 50mm layer of topsoil and till together. Add topsoil and planting mix over and till together. Do not compact. Add lime, sulphur and fertilizer during soil installation.

**Plants, shrubs, trees, etc.:**

All trees to be minimum 2m high (planted height). Trees not planted in planters or concrete surrounds are to be planted 1m away from the walkways in 1 x 1 x 1m deep excavated holes.

Trees are to be staked where required and the proposed method shall be approved by the Architect. Stakes shall be of sufficient strength to maintain the tree in the upright position. Where guy wires are attached around the tree, the trunk shall be protected with 20mm diameter rubber hose of sufficient length to extend past the trunk by more than 105mm.

Plants must be set plumb and braced in position until topsoil or plant mix has been placed and tamped around the bases of the root balls. Plants shall be set so that they will be at the same depth and so that the root balls do not shift or move laterally one year later.

All plants to be free from any damage, parasites, fungus or any other plant diseases or insects. No container bound plants will be acceptable. All leaves to be dust free.

All plants are to be viewed and approved by the Architect before planting. All plants must be transported to the site in trucks with closed canopies. Plants in transit may not be exposed to wind or any other harmful element.

Prices for watering all newly planted plants/trees/shrubs twice a week for a period of six (6) months after Practical Completion.

**Topsoil supplied by the Contractor, including spreading and levelling:**

394	In plant beds, grassed areas and holes for trees, shrubs, etc.	m3	100	
-----	----------------------------------------------------------------	----	-----	--

**Compost, fertilizer, etc.:**

395	Compost in plant beds, grassed areas, holes for trees, shrubs, etc.	m3	50	
-----	---------------------------------------------------------------------	----	----	--

396	5:1:5 Fertilizer for lawns	kg	50	
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**Carried to Collection**

R

Section No. 6  
EXTERNAL WORKS (PROVISIONAL)  
Bill No. 1  
EXTERNAL WORKS



			Amount
Section No. 6			
Bill No. 1			
EXTERNAL WORKS			
<b><u>COLLECTION</u></b>			
Total Brought Forward from Page No.		Page No	
		184	
		185	
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Section No. 6 EXTERNAL WORKS (PROVISIONAL) Bill No. 1 EXTERNAL WORKS	<b>Carried Forward</b>	R	

	Page No	Amount
Section No. 6		
Bill No. 1		
EXTERNAL WORKS		
<b><u>COLLECTION</u></b>		
<b>Brought Forward</b>		R
Total Brought Forward from Page No.	205	
	206	
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<b>Carried Forward</b>		R
Section No. 6 EXTERNAL WORKS (PROVISIONAL) Bill No. 1 EXTERNAL WORKS		

Section No. 6

Bill No. 1

EXTERNAL WORKS

**COLLECTION**

**Brought Forward**

**Page  
No**

**Amount**

R

Total Brought Forward from Page No.

225

226

227

228

**Carried to FINAL SUMMARY**

R

Section No. 6  
EXTERNAL WORKS (PROVISIONAL)  
Bill No. 1  
EXTERNAL WORKS

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION No. 7: PROVISIONAL SUMS</u></b></p> <p><b><u>BILL No. 1: PROVISIONAL SUMS</u></b></p> <p>The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (1999 Edition), the Department of Public Works document No. PW 371 Specification of Materials and Methods to be used and to the Supplementary Preambles as per each trade.</p> <p>NOTE : For all TRADE NAMES and the use of alternative items, refer to Section 3: Specific Preliminaries Item C3</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><u>General</u></p> <p>Work for which budgetary allowances are provided will be measured and valued in accordance with Clause 25 of the Principal Building Agreement and deducted in whole or in part if not required without any compensation for loss or profit on the said allowances</p> <p>Prime cost amounts and provisional sums are net. Prime cost amounts include for delivery to site of all articles concerned</p> <p>Provisional sums are for material and equipment supplied and installed complete by firms of specialists</p> <p><u>Builder's work</u></p> <p>Builder's work in connection with specialist services is given elsewhere in these bills of quantities</p> <p><b><u>MONETARY PROVISIONS</u></b></p> <p>Tenderers to take note of Clause C9 Administration of the Preliminaries section of these tender documents</p> <p><b><u>KITCHEN APPLIANCES</u></b></p>				
1	Provide the amount of R 30 000.00 (Thirty Thousand Rand) for kitchen appliances to be approved by the client		Item		30,000.00
	<b>Carried to Collection</b>			R	
	Section No. 7 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS				





Section No. 7

Bill No. 1

PROVISIONAL SUMS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

232

233

**Amount**

**Carried to FINAL SUMMARY**

R

Section No. 7  
PROVISIONAL SUMS  
Bill No. 1  
PROVISIONAL SUMS

Section No	<u>RIVERVIEW PRIMARY SCHOOL - FINAL SUMMARY</u>	Page No	Amount
1	PRELIMINARIES	33	
2	RAFT FOUNDATIONS FOR ACT BUILDINGS	41	
3	MODULAR PREFABRICATED CONSTRUCTION SYSTEM	136	
4	VIP AND GRADE R TOILETS	175	
5	PLUMBING & DRAINAGE (PROVISIONAL)	183	
6	EXTERNAL WORKS (PROVISIONAL)	231	
7	PROVISIONAL SUMS	234	
	C2.3a ELECTRICAL AND MECHANICAL INSTALLATION		SUM
	<b><u>MONETARY PROVISIONS</u></b>		
	Sub Total		R
	The following monetary provisions have been made in the contract and must be omitted from the contract sum at the start of the contract and used as directed below.		
	<i>Please note: These are monetary provisions only and the use, value and payment thereof are subject to adjustment based on actual costs through contractually approved variation orders.</i>		
	<b><u>CONTINGENCIES</u></b>		
	Provide the sum of R 750,000.00 (Seven Hundred and Fifty Thousand Rand) for Contingencies, to be adjusted, used and paid as instructed and approved by the Client in terms of clauses 17, 31 and 32 of the Principal Building Agreement (refer JBCC).		R 750,000.00
	Sub Total		R
	VALUE ADDED TAX 15%		R
	TOTAL BUILDING WORKS INCLUDING VAT		R
	<b>Carried to C1.1 - Form of Offer and Acceptance</b>		R

**Consisting of:**

**Section 1: Detailed Technical Specification**

**Section 2: Returnable Schedules**

**Section 3: Pricing Instructions & Bill of Quantities**

**Section 4: Tender Drawings**

**Section 1 – Detailed Technical Specification**

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## **ELECTRICAL INSTALLATION DETAILS**

### **1. INTRODUCTION & GENERAL**

This specification outlines the scope expected of materials and workmanship and does not attempt to instruct the electrical contractor on how to perform his work.

Should there be any conflict or ambiguity between sections of this enquiry, then the sections will be considered in the following order of priority: -

- Bills of Quantities
- Project Specification including Equipment Schedules
- Drawings

Should the Tenderer notice any inconsistencies between these sections, it is contractor's responsibility to notify the Engineer in order to obtain clarification thereon before submitting the bid document.

### **2. TENDER PROCEDURE**

- The electrical installation to be carried out by a **Domestic Sub-contractor** ("hereinafter referred to as **Electrical sub-contractor**") to the principal contract, in terms of the principal contractor's general condition of contract. All conditions, in terms of the principal contract are relevant and binding to this sub-contract. It is the responsibility of the Sub-contractor to obtain all the relevant conditions of the contract from the principal contractor prior to submitting their tender. All payments for the electrical work will be paid through the principal contractor.
- This tender must be completed in full including the electrical Bills of Quantities and is to be returned with the principal contractor's returnable schedules and tender.
- All Sub-contractor's must be registered as the Electrical Contractors with the Department of Labour and work must be carried out by **"THE REGISTERED ELECTRICIAN"**
- All Sub-contractors must be registered with the CIDB and must have the correct grading (**3EB or Higher**) for the value of electrical work.
- All materials must be of South African manufacture and must bear the SABS approval mark and to conform to the specifications contained herein. The Electrical Subcontractor must submit proof of unavailability where this requirement cannot be fulfilled.
- Only local produced or locally manufactured electrical cables products, photo-voltaic system and raw material or input will be considered.
- **100% OF MATERIAL OR GOODS AND SERVICES MUST BE PROCURED WITHIN THE BOUNDARIES OF THE EASTERN CAPE AND MUST BE MARKED "ECP"**
- All quantities in the Bills of Quantities are provisional quantities.

### **3. SCOPE OF WORKS**

The main contract is for the construction of a new senior primary school on the site of the existing school. The new school comprise administration block, media and science

lab, grade-r block with its ablution, multi-purpose block, dining & kitchen block, male &

female and staff & disabled ablutions in Riverview Junior Primary School.

The underground routes service cables of electrical and telephone is not known and the as-built drawings are not available. The subcontract's responsibility will therefore include looking for the routes of existing services cables.

The work includes the modification work in the existing buildings.

The Work to be carried out by the Electrical Subcontractor under this Contract comprises mainly the supply and installation of the following, including commissioning:

- (i) Test, isolate, disconnect and remove existing electrical installation and tracing of the existing cables.
- (ii) LV cable from Eskom meter box to the distribution kiosk at the site boundary
- (iii) Refurbish or modify the existing photo-voltaic as 10kW off grid power supply
- (iv) Installation of lighting and small power systems
- (v) Power skirting installation
- (vi) Earthing and bonding
- (vii) Public address/ intercom installation
- (viii) Power and telephone cable sleeves and manholes from the site boundary
- (ix) Attendance to telephone, intercom (public address system), intruder alarm and data cabling specialist contractors
- (x) Performing and submission of test records and certificates
- (xi) Installation of Lightning protection system (LPS)
- (xii) Test completed installations, issue of Certificates of Compliance for both electrical and the LPS installations
- (xiii) Produce marked as-built drawings to be submitted to the Engineer
- (xiv) Supply and installation of mechanical installation (LP Gas and Kitchen extraction / ventilation)

The description of the Works listed above, is not necessarily complete and shall not limit the work to be carried out by the Electrical Subcontractor under this Contract.

#### 4. **SPECIFICATIONS & STANDARDS**

The works carried out under this Contract shall be governed by the:

- (i) SANS 10142-1: Wiring Code,
- (ii) Interior Lighting Part 1: Artificial Lighting of Interiors; Part 2: Emergency Lighting – SANS 10114-1
- (iii) Protection against Lightning – Physical Damage to Structures and Life Hazard: SANS 10313: 2008 and in conjunction with the SANS 62305 series
- (iv) The Occupational Health and Safety Act, 1993 (Act 85 of 1993)

#### 5. **SYSTEM LOW VOLTAGE**

The supply to all the Electrical installation shall be 400/230 Volts, 2 phase, 3 wire, 50 Hertz, Earthed Neutral.



6. **SCHEDULE OF MATERIALS**

In all instances where schedule of materials are attached or included on the drawings, these schedules are to be regarded as forming part of the specification.

All materials and equipment procured by the Electrical Subcontractor must be made in South Africa. Where this is not possible, the Electrical Subcontractor must provide to the Engineer or Engineer's Representative validating evidence that such material and/or equipment is not available South Africa.

7. **CONTRACT DRAWINGS**

Drawings must be read in conjunction with this Specification and the Bills of Quantities. Any errors, discrepancies or contradictions found between the Drawings, the Specifications and the Bills of Quantities must be brought to the attention of the Engineer immediately they become evident.

The drawings generally show the scope and extent of the proposed work and shall not be construed as showing every minute detail of the work to be executed.

The position of power points, switches and light points that may be influenced by built-in furniture and equipment must be established on site prior to these items being built in.

Drawings will be issued to site accompanied by drawing issue slips. The drawing issue register reflecting the summary of all previously issued drawings with dates and drawing revisions will be issued at site meetings once a month.

8. **POWER CABLE SLEEVES**

Where cables cross paved, concrete or tarred surfaces and roadways where cables enter buildings, cables shall be run in Kabelflex PVC sleeves. Any other cable sleeves will not be acceptable.

The ends of all sleeves shall be sealed with a non-hardening watertight compound after the installation of cables. All sleeves intended for future use shall likewise be sealed and provided with nylon ropes for pulling in future cables.

All sleeves shall be laid in at a minimum depth of 600mm below finished road levels. Slow bends approved by the Engineer shall be used where sleeves enter buildings.

9. **NOTICES AND FEES**

The Contractor shall liaise, issue all notices and make the necessary arrangements with Eskom for power connection.

The Contractor shall give all notices required and pay all necessary fees which may be due to the relevant authorities.

10. **EXISTING SERVICES**

The Electrical Subcontractor shall be held responsible for damage to any existing services shown on the drawings and/or brought to his attention by the relevant authorities. The repairs to such the damaged underground services will be to the Electrical Subcontractor's account.

To avoid damaging existing underground services and existing underground electrical cables that cannot be pointed to him, the Electrical Subcontractor shall supply and use detection equipment for the location of underground services.

11. **QUALITY OF MATERIALS**

Materials are to comply with the relevant South African National Standards (SANS), or to IEC specifications, where no SANS specifications exist. All materials used shall bear the SABS mark of approval as applicable.

**All materials must be of South African manufacture unless this is not possible.**

12. **BALANCING OF LOAD**

The Electrical Subcontractor is required to balance the load as equally as possible over the multiphase supply during the construction period of the Contract.

The Electrical Subcontractor is, then, to return to site at Final Completion to take current readings from all the distribution boards and balance the loads where necessary. This is to be done with the Engineer or the Engineer's Representative in attendance.

13. **SUPERVISION**

The work shall, at all times for the duration of the Contract, be carried out under the supervision of a skilled and competent representative of the Electrical Subcontractor, who will be able and be authorised to receive and carry out instructions on behalf of the Electrical Subcontractor. A sufficient number of workmen shall be employed at all times to ensure satisfactory progress of the work.

14. **WORKMANSHIP**

All inferior work shall, on indication by the Engineer, immediately be removed and rectified by and at the expense of Electrical Subcontractor.

15. **SUPPLY OF MATERIAL**

The Employer reserves the right to supply material or equipment to the Electrical Subcontractor for installation. The Electrical Subcontractor must arrange for taking delivery of and providing safe storage for such materials or equipment and he/she will be held responsible for all damages to or loss of such materials or equipment while they are in his/her custody. The Electrical Subcontractor will submit the installation rate of such materials or equipment to the Engineer if not included in the priced Bills of Quantities.

16. **SAMPLES AND DRAWINGS**

The Electrical Subcontractor is required to submit for approval, comment or records, samples of materials upon which his offer is based prior to installation. Any approvals given or comments made shall be on the generality of the scheme and shall not relieve the Electrical Subcontractor of his responsibility to ensure full compliance with all performance, regulatory criteria and latent defects experienced.

Samples forwarded shall remain in the site stores until completion of the Works. The samples will be the last items to be embodied in the installation.

All expenses in connection with the supply and return of the samples shall be borne by the Electrical Subcontractor.

## 17. **SWITCHES, OCCUPANCY SENSORS AND SOCKET OUTLETS (SSO)**

### **General**

Covers shall be of pressed galvanised powder coated steel of at least 1mm thickness and similar to Clipsal, Crabtree or Lesco and manufactured in accordance with SANS 1084. The Electrical Subcontractor may submit equivalent alternatives to the Engineer for approval.

Light switches and switched socket outlets plates must be provided with earth studs and all light switch boxes shall be connected to the earth conductor.

**For uniformity only one make must be installed.**

### **Light Switches and Occupancy Sensors**

Light switches shall be of 250 Volts grade and comply with SANS 1085 as amended and bear SABS mark. Light switches shall be rated at 16 Amperes.

Light switches exposed to the weather must be of an approved watertight type.

Multigang switches are to be used where more than one light switch is indicated on the drawing.

180° PIR + Microphonics wall mount and 360° PIR + Microphonics ceiling mount must have an IntelliDAPT® Technology Self-adjusting timer Self-adjusting passive infrared (PIR) sensitivity Automatic false-on / false-off corrections with no manual adjustments required

Time Delay Auto mode: 4 – 30 minutes;

Self-adjusts based on occupancy Fixed mode: 4, 8, 15, and 30 minutes

Test mode: 5 seconds

Voltage: 220 – 240V/AC; Frequency: 50/60Hz

Load: LED max: 300W

Detection Range: 1 – 10m

Light level: 10 – 2 000 LUX

Natural light override range: 100 – 5000 LUX

Time setting: 10 seconds – 30 minutes; Detection Angle: 120 °

Installation height: Approx. 1.4 m for wall mount

Working Temperature: -10°C to +40°C

Manual Override For manual control, the ES902 series motion sensor features a convenient push button switch.

Casing must be rugged, high impact, injection-moulded plastic KJAB ABS Cycolac (UL-954VA) flame class rating UV inhibitors, impact resistant lens and 152.4mm long colour-coded leads

If the lights are OFF, pressing the button will turn the lights ON for as long as the room is occupied. The lights will turn OFF once the room is vacant, after the delayed OFF time expires.

If the lights are ON, pressing the button will turn the lights OFF and keep them OFF even if the room is occupied. This feature is particular useful for presentations or when the automatic motion sensor settings need to be overridden. The lights can be turned back ON by simply pressing the button. The sensor will return to normal operation.

Switches which shall be of the single pole, rocker operated type in existing flush mounted 100mm x 50mm x 50mm galvanised boxes.

### **Socket Outlets**

Switched socket outlets shall comply with SANS 164-1 and SANS 164-2 as amended and be rated at 16 Amperes, 250 Volts unless otherwise specified.

Socket outlets shall be of the normal standard 3-pin and standard 3-pin ZA plug (new standards) shuttered base type and bear SABS mark.

Socket outlets indicated on walls shall be existing flush mounted 100mm x 100mm x 50mm galvanised boxes.

## **18. LUMINAIRES AND LED MODULE & DRIVERS**

All luminaires to be supplied by the Electrical Subcontractor shall have the approval of the Principal Agent.

Luminaires must be of the type specified in the Schedule of Light Fittings.

### **Luminaires**

The Electrical Subcontractor shall supply luminaires complete with lamps in separate boxes. All internal luminaires shall have LED module and dimmable driver and external luminaire must have LED module and driver.

### **Installation**

The installation and mounting of luminaires must conform to the manufacture's specification that must be obtained by the Electrical Subcontractor.

The Electrical Subcontractor is to note that in the case of board and acoustic tile ceilings i.e., as opposed to concrete slabs, close co-operation with the Principal Contractor is necessary to ensure that as far as possible luminaires are symmetrically positioned with regard to the ceiling pattern. The lay-out of the luminaires as indicated on the drawings must be adhered to as far as possible, and where this is not possible due to partitioning, etc., the Principal Agent's decision must be sought.

Luminaires installed against concrete ceilings shall be screwed to the outlet boxes and in addition 2 x 6mm expansion or other approved type fixing bolts are to be provided. The bolts are to be 3/4 of the length of the luminaires apart.

Luminaires to be mounted on board ceilings shall be fixed onto wooden brandering and where necessary, additional brandering must be provided for this purpose. The fixing screws are to be placed 3/4 of the length of the fitting apart.

Earth conductors must be drawn in with the circuit wiring and connected to the earthing terminal of all fluorescent luminaires as well as other luminaires exposed to the weather.

Bulkhead luminaires are to be screwed directly to the concrete and brick work with approved expansion type of fixing plugs and round head screws. Against board ceilings luminaires shall be secured to the brading or joists by means of two 40mm x No. 8 round head screws.

### **LED Module**

LED modules to be supplied with luminaires must be from manufacturers listed below. Any other similar lamps may be submitted for approval:

- Tridonic, Osram, Vossloh-Schwabe

### **LED Driver**

LED drivers and module to be supplied with luminaires must be from manufacturers listed below. Any other similar lamps may be submitted for approval:

- Tridonic
- Vossloh Schwabe
- Osram
- Phillips

**NOTE: No-name brands and brands of dubious quality and origin are not acceptable.**



## 19. SCHEDULE OF LUMINAIRES

- Luminaires and accessories are to be according to this Specification and shall be approved by the Engineer. As a minimum requirement, all luminaires to be installed in this contract shall bear a SABS or IEC mark of quality approval including their components

### **LED luminaires to have cool white for offices and classrooms and warm white for public spaces**

#### **All luminaires to**

- Have Tridonic LED module and driver with dimmable option with 3m cable with 5A plug and 3 year Warranty
- LED luminaires to be 4000K with Ra of not less than 80
- Life cycle: 60000 hours lifetime @ Tq 25 °C minimum and L70 derating, 80 or more colour rendering index (CRI > 80).
- Surge protection device: 5kV/5kA (this will depend on the location, for indoor it is usually between 5kV/5kA and 10kV/10KA and for outdoor is 20kV/20kA)
- Insulation classification: Class 1
- Driver shall comply with IEC 61347-1 & IEC 61347-2-B as applicable and shall be suitable for operation on 230V +/- 10% 50Hz single phase system and it must be insured that harmonics filter is provided as per SANS 61000-3-2. The driver and LED circuitry shall be protected against lightning and power surges. The suitable surge arrestor with 10kA rating shall be provided for indoor installations and 20kA for outdoor installations.
- The driver should be 198 – 277V tolerance.
- Driver – Built in Tridonic driver must have 5-year guarantee.
- Luminaires shall be suitable for operation with Mid Power LED's. Note that no LED tubes are allowed to be used.
- Power factor capacitors shall be supplied to correct the power factor to at least 0.95 or higher.
- THERMAL: the luminaire must be able to withstand an ambient temperature of 35<sup>0</sup> C. Storage temperature of the luminaire should be able to handle -40 °C <T<60 °C. To this end internal electrical and mechanical components shall not be allowed to exceed their maximum temperature ratings of 750C. Test report from an independent authorized testing facility proving this requirement shall be made available to the Department on request.
- Noise: Due to the sensitive environment in which the luminaire is used, the noise level emitted from the luminaire shall be kept as low as possible. Drivers/electronic components shall, therefore, comply fully with the requirements of the latest edition of SANS 55015.

Type	Description of the fluorescent luminaires	Pictures of the fluorescent luminaires	Area where luminaire will be used
A	<p>40W double strip LED surface mounted channel luminaire including an integrated surge protection, LED module and driver and polycarbonate end caps.</p> <ul style="list-style-type: none"> <li>• Body - 0.8mm rolled mild steel body housing, white epoxy powder coated finish with housing made of anodized extruded aluminium.</li> <li>• Colour – white</li> <li>• Colour Temperature – 3000K (warm white) / 4000K (cool white)</li> <li>• Diffuser - UV stabilized and impact resistant translucent polycarbonate which eliminates the glare usually evident in LED fittings with exposed diodes</li> <li>• Lumen (min) at 35°C – 3750 lm</li> </ul> <p>Dimensions – between 1200mm Long</p>		Classrooms, Store room and Strong room
G	<p>40W LED corrosion proof protected luminaire with body is manufactured from injection-moulded, flame retardant polycarbonate material, polycarbonate end caps and stainless clips</p> <ul style="list-style-type: none"> <li>• Body - 0.8mm rolled mild steel body housing, high quality anodized extruded aluminium.</li> <li>• Colour – white</li> <li>• Colour Temperature – 3000K (warm white) / 4000K (cool white)</li> </ul>		Store room and toilets

	<ul style="list-style-type: none"> <li>• Diffuser – Opal UV stabilized and impact resistant which eliminates the glare usually evident in LED fittings with exposed diodes</li> <li>• Lumen (min) at 35°C – 4000 lm</li> </ul> <p>Dimensions – 1200mm Long</p>		
K	<p>1 x 10W decorative indicator surface mounted, above the strong room, luminaire with 230V flasher and red diffuser (lens).</p>		<p>Above strong room door</p>
L	<p>17W LED outdoor decorative bulkhead luminaire IP rating – 66</p> <ul style="list-style-type: none"> <li>• Body – powder coated LM6 die-cast extruded aluminium, permanently sealed to the aluminium base</li> <li>• Colour white</li> <li>• Colour Temperature – 4000K (cool white)</li> <li>• Mounting – ceiling or wall mounted</li> <li>• Trim Ring – high-pressure, die-cast aluminium and is finished in a special multi-stage epoxy powder surface coating and captive washers and captive stainless steel M5 Allen head screw</li> <li>• Lumen (min) at 35°C – 2620 lm</li> <li>• Diffuser – UV stabilized, opal non-discolouring high impact acrylic injection moulded with eyelid</li> <li>• Mains Connections - 300mm supply with lead suitable screw terminal block with a wire clamping contact</li> </ul> <p><b><u>BEKA 31 SERIES, NO ALTERNATIVE WILL BE ACCEPTED</u></b></p>		<p>Indoor, Outdoor and Ablutions</p>



P	<p>55W LED floodlight luminaire with Surge protection 20kV/20kA surge protection</p> <ul style="list-style-type: none"> <li>• Body – Marine grade high pressure die-cast aluminium with powder coating for corrosion resistance. Mounting bracket and screws to be of same quality captive stainless steel M5 Allen head screws, must be secured by stainless steel latches and an access screw Colour Temperature – 5700K (cool white)</li> <li>• Impact resistance (glass) – IK 07</li> <li>• Colour – Pearl Light Grey (RAL 9022), Textured finish</li> <li>• Mounting – wall mounted or pole mounted, stainless steel stirrup</li> <li>• Lumen (min) at 35°C – 5700 lm</li> <li>• Diffuser – impact resistant glass fitted over a silicone glass</li> <li>• Reflector – Standard finish unpainted aluminium</li> <li>• Protector – High-impact clear glass</li> <li>• IP rating – 66, three-compartment housing, ensures reliable ingress protection of and automatic disconnection of power when opened</li> </ul>		Outdoor
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## 20. **WIRING**

Lighting and Power wiring in conduit and channel wireways shall comprise 600/1000V single core PVC insulated copper wire sized in accordance with the distribution board schematics. Conductor outer sheaths shall be of the following colours:-

- Phase Conductors : red, white, blue
- Neutral : black
- Earth : green or yellow/green

Conductors shall not be drawn into conduit until the conduit installation has been completed and all conduit ends are provided with bushes, dried out and cleaned, etc.

The loop-in system shall be followed through out, and no joints of any description will be permitted. The earth wire must be continuous and can be common in the same conduit. If cut, the earth wire must be ferruled with a spigot type ferrule.

Bare copper earth continuity conductor must be drawn into wireways with the "live" conductors and connected to the earth pin of the socket outlet and earth terminal block at the respective Switch Board.

## 21. **WIREWAYS**

### **Wiring Channels**

Wiring channels, wherever indicated on the drawings, shall be medium duty of Cabstrut, Cooper B-Line or similar manufacture and shall be complete with corner pieces, end pieces, junction pieces, supply conduits and cover plates as specified and indicated on the drawings. Note that Nylon or plastic nuts or fasteners will not be accepted.

The channels shall be manufactured of rolled sheet steel and hot-dip galvanised to SANS 763.

Channels shall be cold galvanised at all joints, sections that have been cut and at places where the galvanising has been damaged.

### **Conduit and Conduit Accessories**

Unless indicated differently on the drawings conduit and conduit accessories shall be PVC to SANS 950.

Draw-boxes and bonding trays are to be provided in accordance with the "Wiring Code" and wherever necessary to facilitate easy wiring. Draw boxes are not measured separately in the Bill of Quantities. The Electrical Subcontractor must therefore include the cost of draw boxes and bonding trays in the conduit rates

### **Installation**

A maximum of 2 plug circuits or 3 light circuits per 20mm diameter conduits will be permitted. Therefore, before conduit installation care must be taken to work out from the construction drawings the number of circuits required in any section.

## 22. LV DISTRIBUTION BOARDS

Distribution boards must be manufactured and wired by a specialist distribution board manufacturer who is a member of the Electrical Contractor Association. Readymade boards purchased from hardware shops and wholesalers and wired by the contractor are not acceptable.

### Distribution Boards Layout

- (i) The layout shall be such that three phase and single phase sections are mechanically and electrically separated.  
  
Single phase sections of three phase boards shall be arranged in three horizontal parallel rows, directly above on another and in the phase sequence L1 - L2 - L3 from top to bottom.
- (ii) Lighting and power circuits shall be separated by a dummy space and along the horizontal rows. Extra space for future circuits shall be allowed for at the right hand side of each lighting and power row, in the ratio of one spare space for each four lighting or power circuit installed (25%). A minimum of one space shall be allowed to each lighting and power row. Dummy covers are to be provided over spare spaces. Similar provision for future circuits shall be made on the bus-bars, neutral and earth bars.
- (iii) Any part of the distribution board metal work shall be electrically continuous and a suitable stud shall be provided for the earthing of the enclosure.
- (iv) An earth bar must be provided in the bottom of the distribution boards for the connection of earth conductors for other services

### Marking and Labelling

- (i) The distribution boards shall be fitted with identification labels engraved with the reference logos indicated on the wiring diagrams. The labels shall be affixed to the front of the panels or in a similar prominent position, by drive screws or other approved method.

DB's label shall indicate the following information:

- DB name e.g., "SDB-G"
  - Where it is fed from and the cable and earthwire sizes e.g., "Fed from MBD-G with 35mm<sup>2</sup> 4-core SWA ECC cable"
- (ii) Each individual item of equipment installed in the panels shall be identified by a label engraved with the corresponding diagram reference.

**Note: Self-adhesive tape labels, such as Brother™ labelling machines will not be considered suitable for this purpose.**

- (iii) Each wiring termination of contactors, timers, shunt trip coils, etc. shall be fitted with a concentric wire marker marked with unique numbers and indicated on the DB as-built schematic diagram. Clip-on and stick-on cable markers will not be considered suitable for this purpose.

- (iv) Where an outgoing terminal block is provided, each individual terminal shall be marked with unique numbers and indicated on the DB as-built schematic diagram.
- (v) Purpose made labels shall describe the various sections or functions of the panels, to facilitate the identification of the equipment and relate it to the diagrams.

### **Drawing Pocket**

Each distribution board must be provided with A4 size pockets, fixed on the inside of doors to store two A1 size drawings which will be folded into A4 size.

### **Equipment**

Unless otherwise stated on the drawings, the following minimum specification shall be assumed for equipment to be installed in the panels:-

Moulded Case Breakers (MCB)                      SABS Class 15 kA

Miniature Circuit Breaker (MCCB)              SABS Class 6 kA

### **Shop Drawings**

Prior to manufacture the Electrical Contractor will be required to submit to the Engineer for approval, factory shop drawings for each distribution board. No request for relaxation of this requirement shall be entertained. The drawings must, at least, indicate the following information:

- Outside distribution dimensions,
- Notes giving detailed description of components and equipment in each board,
- General arrangement of installed equipment,
- Schematic wiring diagrams with fault levels,
- List of equipment to be installed; details to include rating, make and type number,
- Distribution board labels,
- Circuit breaker and isolator label names, as per schematic diagram,
- Project name,
- Drawings number,
- Size of legend card slot.

### **Steel Cages**

All external distribution boards shall have lockable hot dipped galvanised steel cages. These shall be 1000mm x 800mm x 300mm(D) and shall be painted (colour to be decided by the architect).

## **23. MOUNTING HEIGHTS**

Unless indicated differently on drawings all boxes must be mounted as follows: (Measurements to be taken from the finished floor level to underside of a box).

Wall switches, general	: 1 400mm
Switched socket outlets	: 450mm / 1200mm
Outside wall outlets for luminaires	: 2 300mm
Stove isolators and pushbuttons	: 1 200mm
On-tap hot water dispenser isolators	: 2 000mm

## 24. DETAILED INTERCOM TECHNICAL SPECIFICATION

**NOTE 1:** Sub-Contractors are advised that this tender is based on the Department of Public Works Part 3: Quality specifications for material and equipment of electrical installations (where applicable) which impose very specific and rigid conditions for the technical and quality requirements of the equipment and materials, as well as installation, testing, commissioning and maintenance of all aspects of this tender.

The document may be obtained from Department of Public Works website, [www.publicworks.gov.za](http://www.publicworks.gov.za).

Unless otherwise agreed or specified by the Engineer, all equipment shall be of South African manufacture.

### SCOPE OF WORKS

The work covered by this contract comprises the supply, installation, testing, commissioning and guarantee of the Intercom installation at Riverview JPS, Elliotdale / Dutywa.

The existing school is to be renovated and additional blocks are to be constructed.

This installation will be executed in the following blocks:

- Administration Block
- Dining & Nutrition Block
- Classroom Blocks including HoD offices
- Change Rooms
- Specialised Classrooms (Multi-Media, Multi-Purpose and Science Lab)

The installation will be executed into all blocks excluding the Ablution Block  
The works involved and for which the Intruder Alarm contractor must allow briefly as follows:

- Preliminary and General Items
- Installation of new Mater and Sub stations
- Installation of horn speakers
- Supply and installation of the complete wiring system, from sub-stations and horn speakers to master stations
- Testing, commissioning, handing over of the complete installation
- Training of school staff
- Submitting Record drawings and operating & maintenance manuals
- Guarantee and maintenance period as per the principal contract, from practical completion.
- All other materials, equipment, labour and services necessary for the complete, safe and efficient operation of the works in full accordance with the specifications as laid down in this document.
- Power supplies will be installed by others.

## **VISIT TO SITE**

No formal site inspection has been arranged for the Intercom Installation and Sub-Contractors are required to acquaint themselves with site conditions before tendering as no further claims in this regard will be taken into account.

## **SITE ACCESS**

Details and position of the site to be obtained from the principal contractor. In addition, Sub-contractors must note that no equipment or labour will be available to offload plant and equipment.

## **POWER SUPPLY**

Will be carried out by the electrical contractor. It is the Intercom Sub-contractor's responsibility to indicate on site the positions of the required power points.

## **OTHER CONTRACTORS ON SITE**

Intercom sub-contractors are advised that this is a domestic sub-contract to the electrical sub-contractor. Sub-contractors must be aware of the need for co-ordination with the principal contractor and other domestic sub-contractors and must allow in their prices for all costs and difficulties associated with co-ordinating their works with the principal contractor. In addition, the contractor will be required to execute his works in a manner which does not cause unnecessary interference with the principal contractor's works and progress in site.

## **DRAWINGS**

Tender drawings are issued with this document. These are for information purposes and are to be read in conjunction with the schedule of quantities that form the basis of the tender. Any obvious discrepancies found are to be brought to the attention of the Engineer prior to the submission of the tender.

The Intercom Contractor shall read the Intercom and the electrical drawings in conjunction with the Architect and other Engineers drawings in order to ensure the correct positioning of outlets, plant and equipment.

## **SECURITY OF MATERIALS AND EQUIPMENT**

Unless expressly allowed for in the contract sum, the Sub-contract shall in connection with the works, provide and maintain, at his own cost, all lights, guards, barriers, fencing and watching when and where necessary or as required by the Engineer or by any competent statutory or other authority for the protection of the works or the safety and convenience of the public.

## **OPERATING CONDITIONS**

The material and equipment shall be suitable for connecting to:

Low Voltage supply

Material and equipment shall be suitable for the efficient use and operation at the altitude and climatic conditions of Elliotdale / Dutywa.

## **CONTRACT WORK**

The installation shall be carried out entirely by the Sub-contractor's own staff and shall

not in any way be sub-let, except for the specialist work specified elsewhere in this document.

## **SUPERVISION**

The work shall at all times, for the duration of the contract be carried out under the supervision of a skilled and competent representative of the Sub-contractor, who will be able and authorised to receive and carry out instructions on behalf of the sub-contractor. A sufficient number of workmen shall be employed at all times to ensure satisfactory progress of the work.

## **QUALITY OF MATERIAL**

Only “new” materials of first class quality shall be used and all materials shall be subject to the approval of the Engineer. Wherever applicable, the material is to comply with the relevant South African Bureau of Standard Specifications (SABSS), or the British Standard Specification (BSS) where no SABS specification exist.

All materials are to be priced as specified and no alternative will be entertained during the tender process.

Materials, wherever possible, must be possibly be of South African manufacturer.

## **GENERAL REQUIREMENTS OF THE SYSTEM**

The intercom System must provide reliable and good quality audio communication between Master Station and Sub-stations and Master station and public address points. The system must comply with SABS 1066-1985 specification for Intercom systems. The system must be Microprocessor controlled single speech link simplex switched audio communication system.

A working sample of the system (not prototype) must be available for inspection, with full Operational and Technical Manuals detailing all facilities, Technical Specifications, Installation Requirements and Guarantees.

## **OPERATIONAL REQUIREMENTS OF THE SYSTEM**

- **Master Station to Sub-Stations**

Any master station may, by dialling the required code on the keypad, communicate with any of the sub-stations individually, in groups or in All Call. There shall be two-way speech between stations, sub-stations being hands free.

- **Mater Station to Public Address Points**

Any master station may, by dialling the required code make announcements to any PA horn speaker individually, in groups or in All Call. The return speech must be possible from the public address point.

## **FOLLOWING FEATURES MUST BE AVAILABLE ON THE SYSTEM:**

- **ALL CALL**

All master stations and sub-stations must be selected simultaneously when All Call code is dialled on the master station. The speech must ward direction permanently without the operator having to press the P.T.T button, allowing the operator both hands free. The facility must be there to allow the system to be switched back into the simplex Mode when required. P.A points must be able to be excluded from the All Call.

- **CALL TONE**  
When a Master station selects a sub-station or P.A points individually, randomly, in a Group or in All Call, a Call Tone must precede any voice communication.
- **AUTO TIME OUT**  
If a call is initiated at any point and the system is not used or the call is not cancelled the system must reset to the idle state after short period of time.
- **PRIVACY ON MASTER CALL**  
All master stations must have a privacy switch. When the switch is off, call tone and speech from calling master station can be heard. When the switch is in the "ON" position only the call tone is heard and the speech is muted in both directions. The speech can be enabled by switching the Privacy switch off again.
- **PRIORITY CANCEL**  
The master station must have the facility to be programmed to make priority cancels. This allows a master station to cancel any call that is in progress and then initiate a call of its own.
- **CHANGE OF PERIOD TONE**  
The system must have the facility to send out a change of period tone to all sub-stations in the system. The period to must be trigger able by an external source as a time clock, and by dialling a code on the master station. After the period tone has been sent out, the system must reset to normal.
- **CALL BACK FROM A SUBSTATION**  
The system must have a facility to allow a sub-station to initiate a Call back to a master station. By pressing a button on the sub-station, a display on the master station will indicate which number has made a call back, and a tone will be generated at the master station. The call back, besides being displayed, must be automatically switched through to a master station and voice communication must be possible immediately. The system must have the facility to override a continuous fault Call Back, so that the system does not become locked up due faulty call back. The system must also have the means to indicate if a faulty call back is being ignored. This must be a latching system.

## **ELECTRICAL REQUIREMENTS**

System must operate over the temperature range -5 degrees Celsius with a relative humidity of 50%. All inputs and outputs to the system including the power supply must be adequately protected against lightning.

The power supply must have a mains ON/OFF switch, and adequate power under all call operations. It must have suitable protection circuitry to protect against overloading and input surges from the mains. Preferably, all the active electronic circuitry must be housed in the central exchange for ease of maintenance. Circuitry in sub-stations must be kept to a minimum.



## **MECHANICAL REQUIREMENTS**

All Printed Circuit Boards (PCB) in the system must be a modular or pluggable in standard Euro sizes. All PCB's must be through hole plated in double sided and must be solder masked. No wired links will be acceptable.

If the system has a common buss between PCB, it must be solder masked PCB. Hand wiring is not acceptable.

All incoming and outgoing cables must be terminated on a recognised insulation displacement connector.

The connector must have provision for disconnecting and isolating cables without removing the cables from the connector.

All heat sinks must firmly fastened to the PCB and all cables must be anchored and cable tied.

All threaded fasteners must be plated and fitted with lock washers.

All functions on the master station must be permanently marked. Letraset or stick on labels will be acceptable.

All connection points and terminal in the control exchange must be marked on the system, including fuses and their ratings.

The manufacturer and Service Agents name and address must appear on the central equipment and master station.

## **INSPECTION AND TESTING**

On completion of the entire installation or any particular section thereof, as may be decided by the Engineer, tests shall be carried out in the presence of the Engineer or his authorised representative and client's representatives.

## **CERTIFICATE OF COMPLIANCE**

Before any inspection or hand over of the INTERCOM takes place, the contractor will present a Certificate of Compliance of the system installation or part of the installation to be handed over.

## **TRAINING**

The tenderer shall allow for the complete training of the minimum of 8 representative on site for the installation. Training shall be done at practical completion and a further training session to be carried out at works completion. The training dates may change dependent on the client's needs.

## **OPERATING AND MAINTENANCE MANUALS**

Four copies of Comprehensive Operating and Maintenance manuals for all the installations must be supplied at practical Completion. Or at the first training session.

They must contain the following:

- General description of the system.
- Full operating instructions
- All features available on the system
- Technical specification of the system
- Details of all adjustments on the system
- All wiring and connection diagrams
- Correct Maintenance procedures
- Recommended spare list
- Names and contact details of suppliers.

## 25. EARTHING AND BONDING

### General

Earthing shall generally be in accordance with:

SANS 10142-1: Wiring Code,

- (i) SANS 10198: Part 3 - Earthing System; General Provision
- (ii) Part 12 - Installation of Earthing Systems
- (iii) SANS 1063: Earth Rods Couplers and Clamps
- (iv) AMEU Code of Practice for the application of protective multiple earthing to low voltage distribution systems and
- (v) The OHS Act 85 of 1993.

### Trench Earthing

- (i) The trench earth shall be laid alongside and not above cables.
- (ii) All connections shall be by means of crimped lugs and bolted connections.

### Earth Terminal

A readily accessible earthing terminal shall be provided, near the trap door in the ceiling, for the bonding of other services such as a telephone, an audio system, a video, and the like, to the building. Such an earthing terminal shall be bonded to the consumer's earth terminal in the main distribution board by a conductor of at least 6mm<sup>2</sup> copper or equivalent, and shall be identified by the earth symbol.

**NOTE:** Providers of services other than the electrical power services should not access the distribution board or other parts of the electrical installation.

## 26. LIGHTNING PROTECTION SYSTEM

The Electrical Subcontractor shall be responsible for the employment of an accredited specialist sub-contractor to design and install the lightning protection system (LPS). This a re-measurable item in the Bill of Quantities. The Electrical Subcontractor will be instructed to submit a full analysis and design of the LPS system as directed below.

**NOTE: NO INSTALLATION WILL COMMENCE WITHOUT FULL ANALYSIS AND DESIGN OF THE LPS SYSTEM**

This specialist shall conduct a full survey of the buildings to be protected in order to evaluate the type of lightning protection system to be implemented. This survey must be conducted in accordance with the latest following SANS codes of practice:

- (vi) SANS 10313: Protection against lightning – Physical damage to structures & life hazard.
- (vii) SANS 62305-1: General Principles.
- (viii) SANS 62305-2: Risk management.
- (ix) SANS 62305-3: Physical damage to structures & life hazard.
- (x) SANS 62305-4: Electrical & electronic systems within structures.
- (xi) SANS 1063: Earth rods, couplers & connections.
- (xii) SANS 10199: The design & installation of earth electrodes.

The LPS specialist shall provide a risk analysis spread sheet to conclude the buildings classification. The risk analysis shall take into account the following criteria.

**Type of structure:**

- (i) Construction of walls.
- (ii) Roof construction.
- (iii) Roof covering.
- (iv) Equipment on the roof.

**Contents of the structure:**

- (i) Risk of panic.
- (ii) Kind of contents.
- (iii) Value of contents
- (iv) Measures for reduction of damage.

**Consequential losses:**

- (i) Danger to the environment.
- (ii) Loss of services to the public.
- (iii) Other consequential losses.

Based on the above results and in conjunction with location and accepted annual frequency of lightning flashes the required protection level must be established. The design methodology (protective angle, grid or rolling sphere) used for the system must be stated and it must be shown with the use of drawings that the building / structure falls within the shielding offered by the LPS.

The LPS specialist shall also provide drawings to indicate the positions of the air termination system and down conductors. Where applicable the down conductors are to be installed in down pipes. Each down conductor should be bonded to the air termination system and be terminated to a 1 200mm copper earth spike in the ground.

The issue of a Certificate of Compliance for the Lightning Protection Systems is compulsory on completion of the installation.

## 27. MECHANICAL INSTALLATION

### 27.1 Kitchen Canopy Ventilation Installation

Supply and installation of Kitchen Extraction System:

- Supply and installation of stainless steel kitchen canopies and extraction system, complete with galvanised sheet metal distribution duct work, fire dampers, sound attenuation, fan, elbows, etc to complete the system as specified.
- Supply of weather louver for fresh air make up,
- Supply and installation of stainless steel H frame support system,
- Installation, including chasing of conduit into walls for stop starters with
- overload protection.

The following sections of Work are excluded:

- Builder's work e.g. cut-outs in walls to Tenderer's specifications, including chasing and making good of walls.
- Tiling, painting or decorating after installation

- Provision of suitable 380 V / 3 phase power supply for Control Panel.

### **Design Conditions**

Location	: Dutywa
Altitude	: 775m above sea level
External	: Summer 32°C DB
	24°C DB
	: Winter 6°C DB
	: Daily Range 12°C

A stainless steel Vee Bank extract canopy complete with filters, fire damper, silencers, ducting, fans and wired up to a stop starter. The canopy shall be designed, constructed and installed generally as specified and shown on Drawing. Also included is a fresh air make up system consisting of filters, fire damper, silencers, ducting, fans and wired up to a stop starter.

The panels of the canopy must be of 304 stainless steel having a minimum thickness of 1,2mm. The panels must be fixed to a tubular or hollow section stainless steel frame in such a way that the panels are maintained flat and vertical with no sharp edges or unsightly welds. Welding beads must be ground down in order to leave the surfaces and edges of the canopy smooth and free of blemishes.

The canopy must be braced against the roof trusses and walls for stability. The Building Contractor will be required to finish off the ceiling against the perimeter of the extract canopy. The canopy must be neatly finished with no exposed rough or sharp edges or crevices in which insects can be harbored. Where canopy modules are joined the joints must be completely and neatly sealed with a silicon type non hardening sealant. A perimeter condensate drain is required 50mm wide x 25mm high around the bottom lip of the canopy sloped to a final drain point with a 25mm diameter drain.

The canopies shall have flush fitting vapour sealed fluorescent lights 1200mm long.

The filters must be of the impingement type, approximately 500 x 500mm in size and made of 0.70mm grade 430 stainless steel. They must be completely washable and easy to remove.

One axial flow extract fan and one axial flow supply fan (make up air) is required with a minimum extract capacity as specified on the drawing. The fan head must be compatible with the resistance imposed by the canopy filters, ducting and sound attenuators etc. It is required that the fan runs at the lowest speed compatible with the above in order that noise levels be kept as low as possible. The noise level in the kitchen shall not exceed NC 45. Sound attenuators are required to achieve this with the fans offered, such attenuators must be incorporated in the inlet ducting to the fans and must be of a type that will not readily absorb fats and grease from humid extract air thus becoming a fire hazard.

The ducting must be manufactured of 1,0mm thick galvanised steel according to acceptable standards and neatly finished and installed.

Fan motors must be rated for operation in very humid areas and be suitable for use at site voltages.

Note that all dimensions, particularly the exact positioning of existing roof beams MUST be verified on site prior to cutting in or air extract spigots and installation of the canopy and fans.

Kitchen extraction equipment:

- AISI grade 304 stainless steel island, cavity type kitchen canopy. Island to have all side enclosed with perimeter skirting made of grade 304 stainless steel.
- Filter bank to have stainless steel filter baffles
- Island to feature vapour proof, gasket type, double lighting
- Grease slot with two separate bleed holes, c/w stoppers.
- Axial in line fans with duty of 300 l/s.
- Podded sound attenuators, suitable to kitchen extraction, packless type.
- Galvanised sheet metal ducting.
- Flexible ducting.
- Exhaust with vermin proofing.
- Weather louver for makeup air to kitchen.
- Kitchen canopy to be suspended from H elf supporting frame.

The following description details the design parameters for the operation, control, dimensions, finishes, etc. for the various air conditioning units installation. These parameters are the minimum requirements, and the Tenderer may offer equipment that exceeds these specifications.

These general specifications apply to the air conditioning installations. Specific requirements over and above these general specifications are listed under the respective headings.

All ventilation installations shall be an approved stand-alone type having a life expectancy of no less than 10-15 years.

The areas to be ventilation, including specific equipment location is indicated on the Ventilation Layout drawings provided with this document.

### **Controls**

Single flush mounted stop starter with overload protection.

### **Electrical**

Overloads shall be adjustable to approximately 25% higher than the relevant motor overload current.

Wiring in panels shall be neatly run in vertical or horizontal lines and each terminal shall be numbered to accord with the relevant wiring and control diagram. Circuit breakers, timers, relays ,etc. shall be labelled in accordance with the wiring diagram and the item of plant served.

Units shall be located as shown on the drawings, using suitable anti-vibration mounts to

prevent vibration being transmitted into the structure.

### **Maintenance**

The contractor shall include in his tender price for the maintenance of the complete installation for a period of ONE YEAR after first delivery of the entire plant has been taken over by the Clients representative.

The contractor shall visit the installation at regular intervals on an acceptable and agreed day and perform full maintenance on the basis of a proper preventive maintenance programme approved by the Engineer.

The contractor shall report to an official nominated by the abattoir on arriving and again at leaving the abattoir premises on the occasion of each visit. Such person, who has been nominated by the abattoir, shall sign a Service report giving details of any defects made good, temperature readings taken, etc. A copy of such Service Report is to be submitted to the abattoir liasing with the Consultant Engineer in all cases.

At each service visit, the contractor shall, inter alia perform the following duties in addition to any other which may be necessary.

Check condensing units for correct functioning and system for leaks and operation of all safety controls and settings etc.

Check all fans and drives, lubricate moving parts and check all lock-out stops.

Check all switchboards. Tighten connections, check contracts and switchgear for burnt contacts, check overload settings, phase failure relays etc. Replace defective volt metres, ammeters, transformers, pilot lights, etc.

Make good any defects as required in terms of the guarantee given for the plant in terms of the specification.

Attend to any complaints made with respect to the installed plant by the authorised person mentioned in the foregoing. No other person shall have any right to instruct the contractor or make any complaint.

The contractor shall further instruct the abattoir maintenance personnel on the maintenance of any item requiring more frequent attention than during his service visits.

A major service shall be executed by the contractor in the twelfth month of the contract maintenance period.

## **27.2 LP GAS INSTALLATION**

Supply and installation of LP Gas:

- Two (2x) 1 x 1 LP Gas Manifold, pressure regulator, emergency shut off valve and copper pipe reticulation
- One (1x) 2 x 2 LP Gas Manifold, pressure regulator, emergency shut off valve and copper pipe reticulation
- 48kg LP Gas cylinders and 19kg LP Gas cylinders
- SANS required signage and SANS required pipe identification
- Testing and Commissioning
- Manuals, Drawings, OEM Literature

## **General**

All piping shall be cleaned and degreased copper tubing, Maksimal annealed tubing or approved equal. Type MG shall be used for all straight runs, Class 1 or Medical grade tubing half-hard. Class 0 tubing will not be accepted.

In general the piping shall be run in neat horizontal and vertical runs and shall be arranged so as to afford the least possibility of physical damage.

The piping shall be fixed using corrosion resistant stand-off type saddles securely screwed to the wall surface or to the underside of benches. Particular care shall be taken to firmly fix the piping adjacent to all isolating valves, so that the operation of the valve places no strain on the piping.

Where piping passes through brick walls, etc., it shall also be sleeved, plastic sleeves.

**Jointing Method for Piping - Only welded or brazed or compression joints will be accepted.**

## **LP Gas Manifold**

The LP Gas manifold shall consist of the following safety devices

- Non permeable flexible connectors
- Non return valve
- High pressure regulator
- Pressure relief valve
- Pressure gauge
- Line flash arrestor

## **LP Gas Regulators**

### **High Pressure regulators**

The high pressure regulators shall be similar or equal to the ADCENG Rego range. The high pressure regulators shall be connected from the cylinder and reduce the pressure in the pipe line accordingly.

### **Low Pressure regulators**

The low pressure regulators shall be similar or equal to the ADCENG Cremonini Astro range (712s) and shall reduce the line pressure from the pressure regulator to the Bunsen burners to 11 inches of water.

## **LP Gas Fasteners**

Where the LP Gas piping is fixed to the outside of the building a stainless steel hydraulic pipe retaining clamp shall be used to secure the pipe to the building.

## **Fire Department Acceptance**

The fire department shall sign off all workshop drawings, supplied by LP Gas Installer. Acceptance of the installation will be subject to the fire department inspecting and approving the installation for Building Occupation Certificate.

## **Isolating Valves**

Isolating Valves shall be provided as indicated on the drawing. They shall be bronze bodied ball type valves with bronze or stainless steel balls. Valve seals and joint shall be as SANS 10260-2:2004.

The isolating valves shall be readily accessible for maintenance and in case of

emergency.

### **Painting & Labeling**

All piping and any brackets or other supports shall receive one prime coat and one final coat of gloss enamel paint after the installation is complete, as part of this sub-contract.

The final coat of paint on all gas piping shall be as required by per SANS 10140-3.

Self-adhesive labels, indicating type of gas and flow direction shall be applied at all junctions, wall penetrations and adjacent to all valves, as well as at approximately 3m intervals along the length of the pipeline.

Warning notices at the gas banks will be provided by under this contract.

There shall be signage at the Gas Banks as required by SANS as well as the local fire department. They shall bearing warning signs at the gas banks, the sign shall indicated flammable gases, danger and no entry.

### **Concealed Pipe Work**

Where the LP Gas pipe is routed through concealed or void type areas, piping to be routed in seamless stainless steel pipe.

### **Testing**

Before testing the piping system shall be blown through, section by section, so as to ensure that any dust, dirt, etc., which may have entered the piping during construction, is removed.

After completion of the installation but before fitting of regulators or bench outlets and with the open ends of the piping plugged or brazed closed, the piping shall be pressure tested at 700 kPa, using dry air for a period of 24 hours, during which time no pressure loss shall occur. The various fittings shall then be connected and the subsequently made joints shall be soap tested at working pressure.

Only then shall the gas bottles be connected and system purged ready for use.

The correct operation of the regulators, safety relief valves, change-over valve, etc., shall also be checked.

### **MAINTENANCE**

The contractor shall include in his tender price for the maintenance of the complete installation for a period of ONE YEAR after first delivery of the entire plant has been taken over by the Clients representative.

The contractor shall visit the installation at regular intervals on an acceptable and agreed day and perform full maintenance on the basis of a proper preventive maintenance programme approved by the Engineer.

The contractor shall report to an official nominated by the abattoir on arriving and again at leaving the abattoir premises on the occasion of each visit. Such person, who has been nominated by the abattoir, shall sign a Service report giving details of any defects made good, temperature readings taken, etc. A copy of such Service Report is to be submitted to the abattoir liasing with the Consultant Engineer in all cases.

At each service visit, the contractor shall, inter alia perform the following duties in addition to any other which may be necessary.

- Check condensing units for correct functioning and refrigeration system for leaks, refrigerant dryness, sufficient oil level, sufficient refrigerant, and operation of all safety controls and settings etc.
- Check blower coil units including defrost cycle and expansion valves, solenoids, etc.
- Check all fans and drives, lubricate moving parts and check all lock-out stops.



- Check and clean condensing unit coils.
- Check all switchboards. Tighten connections, check contacts and switchgear for burnt contacts, check overload settings, phase failure relays etc. Replace defective volt metres, ammeters, transformers, pilot lights, etc.
- Check all operating and safety devices such as high and low pressure switches, door switches, thermometers, alarm thermostats, etc.

Make good any defects as required in terms of the guarantee given for the plant in terms of the specification.

Attend to any complaints made with respect to the installed plant by the authorised person mentioned in the foregoing. No other person shall have any right to instruct the contractor or make any complaint.

The contractor shall further instruct the abattoir maintenance personnel on the maintenance of any item requiring more frequent attention than during his service visits.

A major service shall be executed by the contractor in the twelfth month of the contract maintenance period.

## 28. **CABLE TRENCHES**

Prior to payment of final retention monies, all cable trenches shall be checked for settling and repaired as necessary.

## 29. **MEASUREMENT OF QUANTITIES**

For construction and installations, the Electrical Subcontractor shall take quantities from the latest available revised construction drawings and physically measure cable routes on site before ordering.

Quantities in the Bills of Quantities must not be used for ordering.

## 30. **INSTALLATION GUARANTEE**

The whole installation shall be guaranteed for the period stated in Contractor Data from the date of Practical Completion.

## 31. **PRACTICAL COMPLETION**

Practical completion shall take place only after the whole installation has been accepted by the Engineer and;

- (a) All damage that may have been done by the Electrical Contractor or other parties in the process of the installation has been repaired and made good
- (b) All tests of the general building's electrical installation has been done and test results have been submitted to the Engineer,
- (c) The completed Certificate of Compliance for Electrical installation have been submitted to the Engineer,

- (d) The completed Certificate of Compliance for Lightning Protection System installation have been submitted to the Engineer,
- (e) All equipment guarantees, if any, have been submitted to the Engineer,
- (f) Correct As-Built drawings have been submitted and accepted by the Engineer,
- (g) The building has been cleared of all debris and electrical waste materials and left in a neat and tidy condition,
- (h) All three phases have been balanced and witnessed by the Engineer. This may require the Electrical Contractor to return to site when the building is occupied to take current measurements and rebalance phases.

32. **FINAL COMPLETION**

Final Completion shall be taken on expiration of the maintenance period which is stated in the Contract Data calculated from the date of taking the Practical Completion.

The final payment will not be approved without the submission of all the above information under 29 and accepted by the Engineer.

## **Section 2 – Returnable Schedules**

### **RETURNABLE SCHEDULES**

#### **TABLE OF CONTENTS**

ITEM	DESCRIPTION
RS.1	FINANCIAL DETAILS
RS.2	REGISTRATION AS ELECTRICAL CONTRACTOR
RS.3	DETAILS OF INSTALLATION ELECTRICIAN
RS.4	SCHEDULE OF WORK CARRIED OUT BY TENDERER
RS.5	PROPOSED KEY PERSONNEL
RS.6	SCHEDULE OF PROPOSED SUB-CONTRACTORS
RS.7	SCHEDULE OF PLANT AND EQUIPMENT
RS.8	SCHEDULE OF MATERIALS OFFERED
RS.9	SCHEDULE OF CONTRACTOR'S TESTING EQUIPMENT

**RS.1 FINANCIAL DETAILS**

Name of Bank or Financial Institution where Account is kept:

.....

Branch Name .....

Bank Contact Person.....

Branch Code .....

Account number .....

Name under which account is operated: .....

**NOTE;**

Tenders cannot be adjudicated without the above information and failure on the part of tenderers to declare the information, thus causing delays to the adjudication to the, may result in their tender being disqualified.

.....

***NAME OF TENDERER***

.....

***TENDERER'S SIGNATURE***

.....

***DATE***

**RS.2 REGISTRATION AS AN ELECTRICAL CONTRACTOR**

The Tenderer must be registered as an Electrical Contractor with the Electrical Contracting Board of South Africa and must also be registered with the Workmen's Compensation Commissioner and the Unemployment Insurance Commissioner to qualify for this tender.

Tenderers must complete the following questionnaire and submit it with this tender.

- a) Has the company been registered with the Electrical Contracting Board of South Africa YES/NO

Registration No:.....

Date of issue:.....

- b) Has the company been registered with the Department of Manpower?

- i) Registered for Workmen's Compensation for Occupational Injuries and Diseases Act YES/NO

Registration No: .....

Date of issue: .....

- ii) The Unemployment Insurance Commissioner YES/NO

Registration No : .....

Date of issue: .....

I/We certify that the above information is correct

Signature : .....

Name of Signatory : .....

Name of Firm Represented : .....

Address : .....

.....

.....

Date : .....

**NOTE: IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT ELECTRICAL INSTALLATIONS REGULATIONS FAILURE TO COMPLY WITH THIS CLAUSE OF THE SPECIFICATION MAY RESULT IN DISQUALIFICATION AND REJECTION OF THE TENDER.**

**RS.3 DETAILS OF INSTALLATION ELECTRICIAN**

I/We certify that ..... is a registered installation electrician in terms of the Occupational Health and Safety Act (Act 85 1994) and is permanently employed by my/our company trading as:

.....

I/We further certify that the abovementioned person will be appointed as the responsible person in charge of the installation, which person shall personally supervise the whole of the electrical works as tendered for from inception to completion inclusive of signing all commencement/completion/ cost certificates necessary as part of the Works.

I/We further certify that I/We am/are fully aware of the provisions of the Occupational Health and Safety Act (Act 85 1994), and that my/our company is trading as a registered electrical contracting organisation.

<b>SIGNATURE OF TENDERER</b>	.....	<b>SIGNATURE OF INSTALLATION ELECTRICIAN</b>	.....
------------------------------	-------	----------------------------------------------	-------

<b>REGISTRATION NUMBER OF INSTALLATION ELECTRICIAN</b>	.....	<b>DATE</b>	.....
--------------------------------------------------------	-------	-------------	-------

**COMPANY STAMP**

**NOTE**                      **It is an offence to employ a registered single-phase installation electrician on a poly-phase installation and it may be necessary to submit a certified copy of the licence of the person to be employed on any poly-phase project.**

**RS.4. SCHEDULE OF WORK CARRIED OUT BY TENDERER**

**RS.4.1 SCHEDULE OF WORK CARRIED OUT BY TENDERER FROM CIDB 5EB AND ABOVE**

The Tenderer shall list below the last five Electrical engineering contracts nature awarded to him from **CIDB Grade 3EB (R6,5 mil) and above**. This information is material to the award of the Contract.

<b>EMPLOYER</b> (Name, Tel No and Fax No)	<b>CONSULTING ENGINEER</b> (Name, Tel No and Fax No)	<b>NATURE OF WORK</b>	<b>VALUE OF WORK</b>	<b>YEAR OF COMPLE TION</b>

SIGNATURE: ..... DATE: .....  
*(of person authorised to sign on behalf of the Tenderer)*



**RS.4.2 SCHEDULE OF WORK CARRIED OUT BY TENDERER FROM CIDB GRADING 1EB AND 4EB**

The Tenderer shall list below the last five Electrical engineering contracts nature awarded to him from **CIDB Grade 1EB (R 650k) to Grade 4EB (R 4 mil)**. This information is material to the award of the Contract.

<b>EMPLOYER</b> (Name, Tel No and Fax No)	<b>CONSULTING                      ENGINEER</b> (Name, Tel No and Fax No)	<b>NATURE OF WORK</b>	<b>VALUE                      OF                      WORK</b>	<b>YEAR OF                      COMPLETION</b>

SIGNATURE: ..... DATE: .....  
 (of person authorised to sign on behalf of the Tenderer)

**RS.5 PROPOSED KEY PERSONNEL**

The Tenderer shall list below the key personnel (including first nominee and the second choice alternate), whom he proposes to employ on the contract should his offer be accepted, both at his headquarters and on the Site, to direct and for the execution of the work, together with their qualifications, experience, positions held and their nationalities.

<b>DESIGNATION</b>	<b>NAME AND NATIONALITY OF: (i) NOMINEE (ii) ALTERNATE</b>	<b>SUMMARY OF QUALIFICATIONS, EXPERIENCE AND PRESENT OCCUPATION</b>
<p><b><u>HEAD OFFICE</u></b> Partner/Director</p> <p>Project manager</p> <p>Other key staff (give designation)</p> <p><b><u>SITE OFFICE</u></b> Site Agent / Engineer</p> <p>Construction supervisor (Give designation)</p> <p>Other key staff (give designation)</p>		

SIGNATURE: .....  
*(of person authorised to sign on behalf of the Tenderer)*

DATE: .....

**RS.6 SCHEDULE OF PROPOSED SUB-CONTRACTORS**

We notify you that it is our intention to employ the following Subcontractors for work in this contract.  
If we are awarded a contract we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.

We confirm that all subcontractors who are contracted to construct a house are registered as home builders with the National Home Builders Registration Council.

	<b>Name and address of proposed Subcontractor</b>	<b>Nature and extent of work</b>	<b>Previous experience with Subcontractor.</b>
1.			
2.			
3.			
4.			
5.			

**RS.7 SCHEDULE OF PLANT AND EQUIPMENT**

The following are lists of major items of relevant equipment that I/we presently own or lease and will have available for this contract or will acquire or hire for this contract if my/our tender is accepted.

(a) Details of major equipment that is owned by and immediately available for this contract.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

(b) Details of major equipment that will be hired, or acquired for this contract if my/our tender is acceptable.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

.....

**NAME OF TENDERER**

.....

**TENDERER'S SIGNATURE**

.....

**DATE**



Item	Material	Make or trade name	Country of Origin
22.	Occupancy Sensor		
22.	Photo-voltaic installation		
22.1	300Watt Polychrystalline Panels (25 year Warranty)		
22.2	3kW 48V Bi-Directional Pure Sine Wave off grid Inverters		
22.3	100Amp MPPT Charge Controllers		
22.4	1660A/hr 2MTE25S Batteries		
22.5	Watering System for Batteries		
22.6	Automatic change-over switch to Eskom		

**NOTE :** Tenderers are to note that under no circumstances may materials be installed other than offered in the above materials schedule, which has been approved and accepted by the Contractor.

Should the successful tenderer wish to supply materials other than those originally offered, prior written approval must be obtained from the Contractor before any orders are placed.

.....

**NAME OF TENDERER**

.....

**TENDERER'S SIGNATURE**

.....

**COMPANY STAMP:**

**DATE**

**S.9 SCHEDULE OF CONTRACTOR'S TESTING EQUIPMENT**

Item	Test	Equipment
1.	Insulation Resistance	
2.	Earth Continuity	
3.	Polarity	
4.	Earth Leakage Protection	
5.	Other: (Specify)...	

SIGNATURE: ..... DATE: .....  
*(of person authorised to sign on behalf of the Tenderer)*

## **Section 3 – Pricing Instructions & Bill of Quantities**



## PRICING SCHEDULES & BILL OF QUANTITIES

### TABLE OF CONTENTS

<b>Clause</b>	<b>DESCRIPTION</b>
3.1	Pricing Instructions
3.2	Bill of Quantities

### 3.1 PRICING INSTRUCTIONS

- 1 These Bills of Quantities contain pages numbered in the consecutive order. The Tenderer is required to check the numbers of pages and should any page be found to be missing, or in duplicate, or if any reproduction is indistinct, or if any ambiguity arises as to the meaning of any item or description, or if these Bills of Quantities contain any obvious errors, then the Tenderer must immediately inform the Engineer and have the same rectified or explained, as the case may be. No claim will afterwards be considered where the Tenderer has failed to comply with these instructions.
- 2 The units of measurement described in the Bills of Quantities are metric units. Abbreviations used in these Bills of Quantities are as follows:

%	=	percent
h	=	hour
km	=	kilometre
kW	=	kilowatt
mm	=	millimetre
m	=	metre
m <sup>2</sup>	=	square metre
m <sup>3</sup>	=	cubic metre
No.	=	number
Prov sum	=	Provisional sum
R/only	=	Rate only
Sum	=	lump sum
W/day	=	Work day
- 3 Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
- 4 The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
- 5 It will be assumed that prices included in these Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to [www.stanza.org.za](http://www.stanza.org.za) or [www.iso.org](http://www.iso.org) for information on standards)
- 6 Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered such items
- 7 An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
- 8 The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.

- 9 Reasonable compensation will be received where no pay item appears in respect of work required in the Bills of Quantities in terms of the Contract and which is not covered in any other pay item.
- 10 The short descriptions of the items of payment given in these Bills of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
- 11 Those parts of the contract to be constructed using labour-intensive methods have been marked in the Bills of Quantities with the letters LI in a separate column filled in against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a variation to the contract. The items marked with the letters LI are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour intensive specification in the Scope of Works.
- 12 Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.
- 13 The responsibility for the accuracy of the quantities written into the Bill remains with the person who prepared the Bill. The Tenderer shall be relieved of responsibility of measuring quantities at the tender stage, and the tender sum submitted shall be in respect of the quantities set out in the Bills, although he will be required to make his assessment of items such as brackets, fixing, etc., from details stated in the Bills and shall include in the item prices for such small installation materials as are required for the complete installation in accordance with the Specification.
- 14 The Bills of Quantities are not to be used for ordering purposes. Any orders placed by the Contractor on the basis of these Bills of Quantities shall be at his own risk.

The quantities given in the Bill for cable, cable markers, earth wire laid with cable and excavations cannot be regarded as exact and are subject to measurement on site after completion of the service and adjustments will be made according to the unit rates given in the Bill.

Notwithstanding the fact that the lengths of cables as given in the Bills of Quantities have been measured from scaled drawings, the contractor shall check such lengths on site before ordering the cable, as he will not be paid for excess cable after the completion of the service. Any allowance for off-cuts shall be made in the unit rates. The final measurements shall be based on the net route length of the cables concerned.

- 15 All items described as "Provisional" shall be measured as executed and paid for according to prices in the Bills of Quantities and any unexpended amounts shall be deducted from the amount of the contract sum. No work for which "Provisional" items are provided shall be commenced without written instructions from the Engineer.
- 16 Materials encountered in the excavations for cable trenches, lighting standard and bollard holes generally shall, unless special provision to the contrary is made hereinafter, be classified as follows:-
  - a) 'Hard rock' shall mean any excavation requiring the use of explosives.
  - b) 'Soft rock' shall mean any excavation which necessitates the use of pneumatic tools.

c) 'Ordinary material' shall mean all pickable material.

In the event of any dispute regarding the classification of material, the Engineer's decision in this connection shall be final.

Should the Contractor consider that any material encountered in the excavations is 'hard rock' or 'soft rock', he shall immediately notify the Engineer in writing. Failing such notification the excavation shall be assumed to be in 'ordinary material' and shall be measured and valued accordingly. Wherever practicable all excavation in ground other than 'hard rock' and/or 'soft rock' shall be carried out first after which levels will be taken of the exposed 'hard rock' and/or 'soft rock' and agreed upon by the Engineer and the Contractor.

Where the Contractor encounters a combination of 'hard rock' and/or 'soft rock' simultaneously in a section of trench and employs explosives or pneumatic tools to remove all the various types of materials in that section of trench, the use of these methods of removal will in no way influence the Engineer's classification of the materials.

## **3.2 - Bill of Quantities**

**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

ITEM	DESCRIPTION	UNIT	RATE			AMOUNT
			Fixed	Value Related	Time Related	
<b>1.0</b>	<b>BILL NO. 1 : PRELIMINARY &amp; GENERAL</b>					
1.1	Contract Works Insurances	Sum				
1.2	Supplementary Insurance	Sum				
1.3	Public Liability Insurance	Sum				
1.4	Construction Guarantee / Security	Sum				
1.5	Establishment on Site and provision of buildings and materials storage facilities and site office facilities (including a drawing rack, desks and chairs)	Sum				
1.6	De-establishment on site including removal of site office facilities and site storage facilities					
1.7	Contract Management and supervision of the Works including Contractor's Monthly Reports and attendance of site meetings (2 per month)	Sum				
1.8	Provision for submission of Shop drawings, Operating & Maintenance Manuals and electrical material samples, etc as specified	Sum				
1.9	Compliance with Construction Regulations and Health and Safety Act including Covid-19 regulations.	Sum				
10.0	Compliance with EPWP Labour Intensive Specification	Sum				
11.0	Tools and Equipment	Sum				
	Others (Please Specify)					
	-----					
	-----					
	-----					
<b>TOTAL BILL NO.1 TO PRICE SUMMARY</b>						

**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

**NB** All materials must be of South African manufacture. The Electrical Subcontractor must submit proof of unavailability where this requirement cannot be fulfilled.

ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
<b>2.0</b>	<b><u>BILL No. 2: DISTRIBUTION BOARDS</u></b>					
2.1	Indoor distribution boards <u>with cascaded protection</u> as specified and shown on the drawings. <b>NOTE: All equipment to be SABS approved and bear the SABS performance mark</b>					
2.1.1	MDB (ADM3-D)	No.	1			
2.1.2	DB-MC (MED-D)	No.	1			
2.1.3	DB-MPC (MPC)	No.	1			
2.1.4	DB-GR (GRADE R-D)	No.	1			
2.1.5	DB-2CL (2 CLASSROOM BLOCK)	No.	1			
2.1.6	DB-VIP3 (GR-R VIP)	No.	1			
2.1.7	DB-VIP 1	No.	1			
2.1.8	DB-VIP 2	No.	1			
2.2	3CR12 outdoor distribution kiosk KIOSK-2 with 3-phase & neutral busbars, earth bar, 60A DP Main circuit breaker, 60A DP circuit breaker for Class I Surge Arrestor	No.	1			
<b>2.3</b>	<b><u>Distribution Board Equipment</u></b> The rates below will be used to add or omit relevant equipment into or out of distribution boards including wiring. All equipment to have a SABS stamp.					
2.3.1	5A to 25A 6kA SP circuit breaker (Curve-1)	No.	1			
2.3.2	15A to 25A 6kA DP circuit breaker (Curve-1)	No.	1			
2.3.3	25A to 32A 6kA TP circuit breaker (Curve-1)	No.	1			
2.3.4	5A to 25A 6kA SP circuit breaker (Curve-2)	No.	1			
2.3.5	5A to 25A 6kA DP circuit breaker (Curve-2)	No.	1			
2.3.6	25A - 32A 6kA TP circuit breaker (Curve-2)	No.	1			
2.3.7	63A -100A 10kA TP circuit breaker	No.	1			
<b>TOTAL BILL No. 2 CARRIED TO PRICE SUMMARY PAGE</b>						

**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

**NB** All materials must be of South African manufacture. The Electrical Subcontractor must submit proof of unavailability where this requirement cannot be fulfilled.

ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
<b>3.0</b>	<b><u>BILL No. 3: CABLING &amp; CABLE SLEEVES</u></b>					
<b>3.1</b>	<b><u>LV Cabling</u></b>					
	Multicore <b>ECC</b> PVCSWAPVC cable with stranded copper conductors to SANS 1507-3 drawn into cable sleeves, installed on cable trays/ladders or laid in open trenches and ducts					
3.1.1	16mm <sup>2</sup> 2 core	m	135			
3.1.3	10.0mm <sup>2</sup> 2 core	m	80			
3.1.4	6.0mm <sup>2</sup> 2 core	m	70			
3.1.5	4.0mm <sup>2</sup> 2 core	m	1			
<b>3.2</b>	<b><u>LV Cable Terminations for</u></b>					
3.2.1	16mm <sup>2</sup> 2 core	No.	2			
3.2.2	10.0mm <sup>2</sup> 2 core	No.	8			
3.2.3	6.0mm <sup>2</sup> 2 core	No.	2			
3.2.4	4.0mm <sup>2</sup> 4 core	No.	1			
<b>3.3</b>	<b><u>LV Trenching</u></b>					
	Excavation 600mm deep x 400mm wide including backfilling and compacting					
3.3.1	In earth	m	500			
3.3.2	Soft rock EXTRA OVER earth	m <sup>3</sup>	10			
3.3.3	Hard rock EXTRA OVER earth	m <sup>3</sup>	20			
3.3.3	Selected fines bedding 150mm under cable and 150mm on top of cable (when required by soil conditions)	m <sup>3</sup>	15			
3.3.4	LV Cable marker tape laid in an open trench and 150mm above a cable 150mm wide 800 gauge cable marker tape.	m	500			
3.3.5	5mm nylon drawn cable drawn into spare sleeves	m	500			
3.3.6	250mm High truncated pyramid cable route marker with stainless steel insert engraved with the cable details eg, "LV 25mm <sup>2</sup> 4C CABLE". installed to protrude 150mm above ground and every 35m along and at the cable route direction change.	No.	6			
Carried Forward from Next Page						



**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

**NB** All materials must be of South African manufacture. The Electrical Subcontractor must submit proof of unavailability where this requirement cannot be fulfilled.

ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
Brought Forward from Previous Page						
3.3.7	Double skin brick manhole, 600mm x 600mm x 600mm deep minimum inside dimensions with heavy dutv cover	No.	1			
3.4	<b><u>LV Cable Sleeves &amp; Bends</u></b> Corrugated (Kabelflex or similar approved) cable sleeve laid in open trench including cutting and joining <b>NOTE: Spare sleeves for future use to be sealed at both ends</b>					
3.4.1	50mm diameter	m	140			
3.4.2	32mm diameter	m	115			
3.4.3	90 degrees slow bends for 50mm dia. Sleeve	No.	8			
3.4.4	90 degrees slow bends for 32mm dia. Sleeve	No.	16			
3.5	Label cables on both ends with numbering beads or non-corroding straps to indicate their connection points.	Sum	1	-----		
<b>TOTAL BILL No. 3 CARRIED TO PRICE SUMMARY PAGE</b>						

**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

**NB** All materials must be of South African manufacture. The Electrical Subcontractor must submit proof of unavailability where this requirement cannot be fulfilled.

ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
<b>4.0</b>	<b><u>BILL No. 4 : CONDUITING &amp; CONDUCTORS</u></b>					
<b>4.1</b>	<b><u>Conduit</u></b> PVC conduit chased into brickwork, cast in concrete or fixed on trusses in ceiling void including cutting, bending, reaming, setting, joining, draw boxes and fixing material (average).					
4.1.1	20mm	m	3110			
4.1.2	25mm	m	150			
4.1.3	32mm	m	1			
<b>4.2</b>	<b><u>Conduit Boxes</u></b>					
4.2.1	PVC Round box for 20mm conduit, back or side entry for 1, 2, 3 or 4-way chased into brickwork, cast into concrete or fixed onto trusses including couplings bushes cover plates and fixing materials	No.	265			
4.2.2	Galvanised steel, 100 x 50 x 50mm box for 20mm conduit built into brickwork or cast in concrete. (cover plates measured elsewhere)	No.	20			
4.2.3	Galvanised steel, 100 x 100 x 50mm box for 20mm conduit built into brickwork or cast in concrete. (cover plates measured elsewhere)	No.	58			
<b>4.3</b>	<b><u>Conductors: 600/1000 grade PVC insulated single core copper conductors</u></b>					
4.3.1	2,5mm <sup>2</sup> red/black	m	8430			
4.3.2	2,5mm <sup>2</sup> Yellow-Green	m	4215			
4.3.3	4.0mm <sup>2</sup> red/black	m	100			
4.3.4	4.0mm <sup>2</sup> Yellow-Green	m	50			
4.3.5	6.0mm <sup>2</sup> red/black	m	100			
4.3.6	6.0mm <sup>2</sup> Yellow-Green	m	50			
<b>TOTAL BILL No. 4 CARRIED TO PRICE SUMMARY PAGE</b>						

**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

**NB** All materials must be of South African manufacture. The Electrical Subcontractor must submit proof of unavailability where this requirement cannot be fulfilled.

ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
<b>5.0</b>	<b><u>BILL No. 5 : GENERAL LIGHTING</u></b>					
<b>5.1</b>	<b><u>Luminaires</u></b> Luminaires must be delivered with lamps packed separately. For Types, see " <b>Detailed Installation Specification: ITEM No. 19</b> ".					
5.1.1	Type-A	No.	57			
5.1.2	Type-G	No.	16			
5.1.3	Type-K	No.	1			
5.1.4	Type-L	No.	38			
5.1.5	Type-P	No.	5			
<b>5.2</b>	<b><u>Equipment and Control Gear</u></b> 16 Amp rocker type light switch with coverplate installed into a flush box (box measured elsewhere)					
5.2.1	One lever, two way	No.	1			
5.2.2	Two lever, one way	No.	5			
5.2.3	Single lever, two way	No.	2			
5.2.4	Rotary switch weatherproof	No.	1			
5.2.5	Photocell	No.	7			
5.2.6	Bulkhead for Photocell	No.	7			
5.2.7	230-250V <sub>AC</sub> Ceiling mounted dual technology (Passive Infrared PIR + Microphonics ) Occupancy sensor IntelliDAPT® Technology Self-adjusting timer Self-adjusting passive infrared (PIR) sensitivity Automatic false-on / false-off corrections with no manual adjustments required	No.	23			
5.2.8	230-250V <sub>AC</sub> Wall mounted dual technology (Passive Infrared PIR + Microphonics ) switched occupancy sensor, IntelliDAPT® Technology Self-adjusting timer Self-adjusting passive infrared (PIR) sensitivity Automatic false-on / false-off corrections with no manual adjustments required	No.	3			
5.3	Labeling of all Light switches with circuit numbers Labelling : Pn/m ; Ln/m where n = circuit number (1, 2, 3, etc) m = component number in the circuit	Sum	1	-----		
<b>TOTAL BILL No. 5 CARRIED TO PRICE SUMMARY PAGE</b>						

**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

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ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
<b>6.0</b>	<b><u>BILL No. 6 : GENERAL SMALL POWER</u></b>					
<b>6.1</b>	<b><u>Power Skirting</u></b>					
6.1.1	Two tier aluminium power skirting complete with covers and cover strips	m	50			
6.1.2	End caps	No.	8			
6.1.3	Internal angles	No.	8			
6.1.4	External angles	No.	8			
6.1.5	Flat Elbow	No.	2			
6.1.6	Flat Tee	No.	2			
<b>6.2</b>	<b><u>Equipment and Control Gear</u></b>					
	Flush mounted 16 Amp 3 pin switched socket outlets with cover plates (Boxes measured elsewhere)					
6.2.1	Standard Single (SANS 164-1) + 3-Pin socket outlet (SANS 164-2)	No.	40			
6.2.2	Standard Single (SANS 164-1) + 3-Pin socket outlet (SANS 164-2) + USB port	No.	5			
6.2.3	Surge Protected Standard Single (SANS 164-1) + 3-Pin socket outlet (SANS 164-2) adaptor	No.	10			
6.2.4	Dedicated Single	No.	5			
6.3	Power Skirting mounted 16 Amp 3 pin switched socket outlets with mounting cragle and cover plates					
6.3.1	Standard Single (SANS 164-1)	No.	16			
6.3.2	3-Pin socket outlet (SANS 164-2)	No.	16			
6.3.3	2,1A switched USB plug / charger	No.	16			
6.3.4	Dedicated	No.	16			
6.4	Indoor surface mounted 20A - 32A DP isolator including box	No.	3			
6.5	Outdoor surface mounted 20A - 30A DP isolator including box	No.	2			
6.6	Bashnee 2000 metre period bell	No.	1			
6.7	Labeling of all Power points with circuit numbers Labelling : Pn/m ; Ln/m where n = circuit number (1, 2, 3, etc) m = component number in the circuit	Sum	1	-----		
<b>TOTAL BILL No. 6 CARRIED TO PRICE SUMMARY PAGE</b>						

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				SUPPLY	INSTALL	
<b>7.0</b>	<b><u>BILL No. 7 : TELEPHONE AND DATA SYSTEM</u></b>					
<b>7.1</b>	Double skin brick <b>600mm</b> deep manhole with heavy duty cover with the following minimum inside dimensions:					
7.1.1	inside dimensions: <b>600mm x 600mm</b>	No.	1			
<b>7.2</b>	Flush mounted distribution board with architrave, 10mm thick soft wood back board (plywood or shutter board) and hinged door:					
7.2.1	450mm x 450mm	No.	1			
7.3	200 x 200 x 100 PVC wall boxes for 25mm & 32mm conduits installed in ceiling void including cover plates	No.	10			
7.4	Drawn into conduit or sleeve 1,6mm galvanised draw wire	m	200			
<b>7.5</b>	<b><u>Power skirting sockets</u></b>					
7.5.1	Telephone RJ11	No.	4			
7.5.2	Data RJ45	No.	16			
<b>TOTAL BILL No. 7 CARRIED TO PRICE SUMMARY PAGE</b>						

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ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
8.0	<p><b><u>BILL No. 8 : LIGHTNING PROTECTION SYSTEM (LPS) TO STRUCTURES</u></b></p> <p>Where applicable all steel roof sheeting to the structure shall be suitably earthed to the special earth systems                      Allowance is to be made that the required earth resistivity surveys be carried out on site, a design for the proposed earthing system be submitted for approval                      The installation of this special system shall comply fully with the listed specifications:                      SANS 10199: The design &amp; installation of earth electrodes.                      SANS 10313: Protection against lighting – Physical damage to structures &amp; life hazard.                      The earth electrode shall be installed at least 1m from the building's perimeter and shall clear all aprons and water channels. These earth spikes must be driven into the ground to at least 400mm below the finished ground level and only after final bonding and tests have been carried out must proper backfilling and compaction of same be executed</p> <p>In each instance these earth spikes must be interconnected by means of approved earth spike clamps and 16mm<sup>2</sup> bare copper earth conductor to the steel roofing by means of 20mm flush PVC conduits installed in the gable walls. The earth conductor must be bonded to the roof sheeting by means of M6 galvanised bolts and nuts at intervals not exceeding 5m, ensuring that roof sheeting on both sides of the ridge are properly bonded. Self-tapping screws shall not be acceptable. The bolting arrangements of the copper conductor to be steel roofing are to be sealed off by means of silicon</p> <p>Allowance shall further be made that the installed lightning protection system, the nearest earth electrode, be interconnected to the installed electrical earth conductor running with the main supply cable of the building by means of 50mm<sup>2</sup> bare copper earth conductor at a depth of 400mm below ground level</p> <p>Where the roof covering consists of non-metallic roof tiles or sheeting the Contractor shall install the 16mm<sup>2</sup> bare copper earth ridge conductor along the full length of the roof below the roof covering level and fix same to suitably sizes Poly type saddles</p>					
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ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
Brought Forward from Previous Page						
8.1	<b>GALVANISED CONDUIT</b> Surface mounted to brickwork, concrete, steel, wood, roof members, etc not exceeding 3000mm above floor level					
8,1,1	20mm Diameter	m	250			
8,1,2	Aluminium alloy conductor complete with conductor guides, expansion loops, through joint, etc. fixed to non-metallic roof covering - 8mm diameter	m	500			
8,1,3	Tee joint, etc. complete for aluminium alloy conductor - 8mm diameter	No.	60			
8,1,4	Steel core reinforced copper spike (rod) 1200 x 16mm diameter and brass coupling with driving cap driven into hole with slurry including drilling of hole	No.	35			
8,1,5	35mm <sup>2</sup> Green PVC insulated stranded copper conductor installed in conduit down from the roof space to the electrodes in the ground (conduit measured elsewhere)	m	150			
8,1,6	Test joints 8mm diameter aluminium and 35mm copper lugs bolted with 8mm brass bolt and nut	No.	30			
8,1,7	Soft excavation for earth conductor not exceeding 1m deep	m	25	-----		
<b>8.2</b>	<b>Sundries</b>					
8,2,1	Allow for the visiting of the site and the carrying out of the required resistivity tests and the issuing of the test results for approval by the Engineer	Sum	1	-----		
8,2,2	Allow for the testing of the completed system and the issue of an SABS prescribed certificate	Sum	1	-----		
8,2,3	Allow for the required maintenance of the system for the full maintenance period including a final test reading before the end of the period	Sum	1	-----		
8,2,4	Test the completed Lightning installation system and issue Certificate of Compliance by a specialist.	Sum	1	-----		
<b>TOTAL BILL No. 8 CARRIED TO PRICE SUMMARY PAGE</b>						

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				SUPPLY	INSTALL	
<b>9.0</b>	<b><u>BILL No. 9 : SUNDRY ITEMS</u></b>					
9.1	Earthing and bonding of the building installations	Sum	1	-----		
9.2	Test the completed electrical installation and issue Certificate of Compliance	Sum	1	-----		
9.3	Electrical Contractor is to return to site at Final Completion to take current readings from all the distribution boards and balance the loads where	Sum	1	-----		
9.4	Prepare and issue marked-up "As built" drawings for the Electrical and LPS installations including Distribution Boards.	Sum	1	-----		
<b>TOTAL BILL No. 9 CARRIED TO PRICE SUMMARY PAGE</b>						



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ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
<b>10.0</b>	<b><u>BILL No. 10 : INTERCOM/PUBLIC ADDRESS SYSTEM</u></b>  All rates to include for the the supply, delivery, installation and commissioning of all equipment necessary to complete the installation					
<b>10.1</b>	<b>Master Intercom Panel</b> Intercom master station with call back function, catering for 20 speakers, with built in high quality, heavy duty paging microphone, strong flexible 10" gooseneck securely fixed to the aluminium die-cast base <b>ACM-66CH</b> microphone, including lightning protection unit <b>LPM08</b> , required power supplies, battery back-up and connectors. (Microsound M20 - 40 way including or approved equivalent)	No.	1			
<b>10.2</b>	<b>Master Sub-Cards</b> Master sub cards with call back function (16 relays SLSISUBCB000 OR approved equivalent) installed in the Reception, Deputy Principal and Principal's office in the Admin Building	No.	2			
<b>10.3</b>	<b><u>Master Station Unit</u></b> Table top master station with 10m of cable for connection to the master intercom panel (Microsound SLSIMSTLOP or approved equivalent)	No.	2			
<b>10.4</b>	<b>Sub Station Units</b> Classroom tamperproof wall mounted speaker with call back button (Microsound RSPXCX190190 - Substation or approved equivalent)	No.	10			
<b>10.5</b>	<b>Amplifier</b> Suitable amplifier to connect to the system for 5 x 15W horn speakers and incorporation of a wireless microphone to allow for announcements over the horn speakers	No.	1			
<b>10.6</b>	<b>Speakers</b> Horn speakers mounted to the external wall covering open areas (Microsound RSHORN15WTRF - Horn speaker or approved equivalent)	No.	1			
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ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
Brought Forward from Previous Page						
<b>10.7</b>	<b>Programmable Timer Switch</b> Programmable time switch to activate the bell over the PA system (Microsound TS631 - Programmable time switch or approved equivalent)	No.	1			
<b>10.8</b>	<b>Wireless Microphone</b> Suitable wireless microphone for connection to the intecom system and horn speakers. All equipment to allow for microphone to make announcements over the horn speakers with 20 - 30 meter range	No.	1			
<b>10.9</b>	<b>Cabling</b> Required telephone cabling as per manufacturers requirements.					
10,9,1	Multiple twisted pair (6 pair) Telkom wet underground cable with 0.5mm plain copper conductor, PVC insulated and PVC outer sheath.	m	200			
10,9,2	Multiple twisted pair (10 pair) Telkom wet underground cable with 0.5mm plain copper conductor, PVC insulated and PVC outer sheath.	m	200			
10,9,3	Multiple twisted pair (2 pair) telephone cable with 0.5mm plain copper conductor, PVC insulated and PVC outer sheath.	m	400			
10.9.4	All required consumables, Krone blocks, connectors and junction bxs	Sum	1		-----	
10.9.5	<b>1kVA UPS</b> - True On Line UPS for intercom system installation	No.	1			
<b>10,10</b>	<b>Grade-R Intercom System</b>					
10.10.1	Two way video intercom with microphone and 7' colour TRFT IR LED LCD without radiation, high definition	No.	1			
10.10.2	Two way tamper proof with at least an IP rating of 65 intercom with microphone, camera and push botton for voice and video call	No.	1			
10.10.3	CISA electric locks for steel gates, it must with grade 6 to resist side force up 1,000kg, include mortice and rim installations, must operate even with undersized power supply, i.e. 250 mA, will function with different voltages, 12V DC, 24V DC and 24V AC.					
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ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
Brought Forward from Previous Page						
10,11	<b>Data Rack Cabinet</b> 12U Cabinet with tray, 2 fans and 5 way Multiplug, bolt and nuts, front mount tray 450mm shelf to fit wall box cabinet					
10,12	System Testing and Commissioning of the PA System installation	Sum	1		-----	
10,13	Operation and Maintenance Manuals (3 lever Arch file + 2 compact discs)	No.	1		-----	
10,14	Training	No.	1		-----	
10,15	GUARANTEE - General guarantee and maintenance period of 12 months (proof of maintenance is required and proof must be submitted to the Engineer, if no proof is submitted, that particular maintenance will null and void)	Sum	1		-----	
<b>TOTAL BILL No. 10 CARRIED TO PRICE SUMMARY PAGE</b>						

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ITEM	DESCRIPTION	UNIT	QNTY	Cost Estimate		AMOUNT
				RATE		
				SUPPLY	INSTALL	
<b>11.0</b>	<b>BILL No. 11 : PHOTO-VOLTAIC INSTALLATION</b>					
11.1	Allow for the replacing, refurbishing and repairing of the existing solar Photo Voltaic system. Including Photo Voltaic Solar Panels, Mounting Brackets, Batteries, Bi-Directional Inverters, Battery Management System (BMS), PWM/MPPT Charge Controller, Distribution Boards and all relevant equipment. Including all relevant technologies and equipment necessary to make the PV system complaint with all					
11.1	300Watt Polychrystalline Panels <b>(25 year Warranty)</b> - Laminated PV Modules	No.	20			
11.2	10kW 2-Phase 48V Bi-Directionl Pure Sine Wave OFF GRID Inverter, Reverse polarity protection, MC4, 4 pairs (2+2) DC connection type, Integrated DC switch, Transformerless isolation, < 3 % total harmonic distortion, adjustable Power factor 0.8 lead to 0.8 lag, IP67 connector AC connection type, 98.2 % peak efficiency, < 2 W night time power consumption, IP65 (electronics) & IP55 (balance) degree of protection, Fan cooled, material Aluminium enclosure, -20 to 60°C ambient air temperature for operation, up to 2000moperating altitude, 4 - 100 % (condensing) relative humidity, < 50 dBA Noise emission (at 1 m distance), 365 days embedded data logger, 5" Graphic LCD (320 x 240 pixels), 4 button Display, Modbus (RS485) communication interface, multi-function relay and <b>5 YEAR WARRANTY</b>	No.	1			
11.3	530A/48V Battery bank (24 x 2V batteries)	No.	1			
11.4	1 x 100A MPPT Charge Controller	No.	1			
11.3	12 string AC combiner box with Class II Surge protection, Up to 400A Disconnect Switch with IP65 Internal Handle, IP66 SMC Enclosure with hinged lid, Individual blown fuse LED indicator, Stainless Steel mount brackets, Modbus RS485 Interface, Individual Current Monitoring of each string on Modbus, Surge Protection Health Monitor on Modbus, Voltage Monitoring, Internal Temperature Monitoring and internal Space Heater	No.	1			
11.4	DC combiner box with 1000-1500V fuses, Polyester cabinet IP66, Fuse-holder bases, RS485 data signal protection, Class II Surcharge protection, Enclosure - glass reinforced polyester, Fire self-extinguishing, Protection degree IK10 against external mechanical impacts, Resistant to extreme temperatures: -40°C and 100 hours at +150°C,	No.	1			
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ITEM	DESCRIPTION	UNIT	QNTY	Cost Estimate		AMOUNT
				RATE		
				SUPPLY	INSTALL	
Brought Forward from Previous Page						
11.5	Distribution board with OFF GRID auto-switch (change-over switch) and Watt Hour meter	No.	1			
11.6	4000mm x 4000mm x 3000mm (H) galvanised free standing mounting structures (must match the existing) including galvanised security fencing and gate with PADLOCK.	Sum	1			
11.7	AC Box Protection	No.	1			
11.8	3030mm (L) x 2440 (W) mm x 2590mm (H) Isopanel container divided into 2 rooms to house equipment	No.	1			
11.9	110mm diameter x 6000mm sleeve duct and couplings	No.	20			
11.10	Solar Cabling	Sum	1			
11.11	Test the completed electrical installation and issue Certificate of Compliance	Sum	1			
11.12	Sub System Testing, Commissioning and Training	Sum	1			
11.13	Earthing And Lightning Protection	Sum	1			
11.14	24 Month Preventative Maintenance Including 4 Call Outs Per Month. All calls must be filed on a log book including call out details.	Sum	1			
11.15	Miscellaneous items	Sum	1			
11,15,1	Material, bolts, nuts, cabling where required, hanger and material to hold the PV panels intact and all items that will make sure that the installation is completed					
11,15,2	Any additional item not specifically mentioned or included in the Bills of Quantities which the Tenderer may wish to detail. Detail below:	Sum	1			
<b>TOTAL BILL No. 8 CARRIED TO PRICE SUMMARY PAGE</b>						

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ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
<b>12.0</b>	<b><u>BILL No. 12 :KITCHEN CANOPY VENTILATION &amp; EQUIPMENT</u></b>					
<b>12.1</b>	<b>Kitchen Canopy</b> AISI grade 304 stainless steel kitchen extraction canopy. 1600 (w) mm x 1000 (d) mm x 600 mm (h) complete with exhaust spigot and filter banks with STOP/START switch and overload protection.	No.	1			
<b>12.1.1</b>	<b>Filters</b> AISI grade 304 stainless 495 mm x 495 mm steel baffle type filters.	No.	2			
<b>12.1.2</b>	<b>Fire Dampers</b> Fire damper 450 mm x 450 mm, externally resettable type.	No.	0			
<b>12.1.3</b>	<b>Lighting</b> flush mounted 1200mm LED vapour proof luminaire with LED drivers and module/s	No.	2			
<b>12.1.4</b>	<b>Axial In Line Extraction Fan</b> Axial in line extraction fan Donkin Majax 315 $\phi$ , 4-half blades 18 $^{\circ}$ pitch, 2880 rpm with a duty of 0.8 m $^3$ /s @ 170 Pa & 55% eff.	No.	1			
<b>12.1.5</b>	<b>Sound Attenuator</b> Cylindrical sound attenuator, c/w flanges, to fit 315 $\phi$ extraction fan. Attenuator to be packless type (film lined type).	No.	2			
<b>12.1.6</b>	<b>Galvanised Sheet Metal Ducting</b> 315 mm diam round galvanised sheet metal ducting, c/w flanges, discharge duct cap and etc.	m	15			
<b>12.1.7</b>	<b>Exhaust</b> Galvanised sheet metal discharge duct cap, 315 mm diam c/w vermin proofing.	No.	1			
<b>12.1.8</b>	<b>Elbows</b> 315 mm diam <b>90<math>^{\circ}</math></b> round elbows galvanised sheet metal ducting c/w flanges etc.	No.	2			
<b>12.1.9</b>	<b>Transfers</b>					
12.1.9.1	Galvanised sheet metal transfer 315 mm diam to sound attenuator.	No.	2			
12.1.9.2	Galvanised sheet metal transfer 315 mm diam to kitchen canopy spigot, approximately 600 x 300	No.	1			
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ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
Brought Forward from Previous Page						
<b>12.1.10</b>	<b>Canopy Support Frame</b> AISI grade 304 stainless steel frame to support kitchen canopy, 1600 x 1000 mm, secured to floor. Underside canopy to FFL - 2000 mm.	Sum	1			
<b>12.1.11</b>	<b>Hangers &amp; Brackets</b> Supply, Install, test, commission and provide 12 month guarantee for all hangers, brackets and etc for extraction ducting system all as specified.	Sum	1			
<b>12.1.12</b>	<b>Make Up Air</b> Supply, Install, test, commission and provide 12 month guarantee for all hangers, brackets and etc for 300 x 300 mm open area natural anodised fresh air intake louvers, c/w hinged panel for installation of filter media.	No.	3			
<b>10.1.12</b>	<b>Electrical Connection</b>					
12.1.12.1	Supply of extract fan stop / starter with overload protection including chasing into the wall and etc.	No.	1			
12.1.12.2	Connection of extraction fan to isolator provided by others.	No.	1			
<b>12.1.13</b>	<b>Kitchen Equipment</b> Supply and installation of kitchen equipment including electrical connections and connections to other required services such as drains, LP Gas, unless otherwise stated. Connection points to be assumed to be within 1.5 meters of equipment					
<b>12.1.14</b>	<b>Industrial Gas Stove</b> Supply and installation of 3 burner industrial boiling table gas stove, mild steel and painted black, approximately 1300mm (l) x 450mm (w)	No.	1			
<b>12.1.15</b>	<b>Freestanding Gas &amp; Gas Electric Stove</b> 3 Gas Burners, 1 Solid Plate Electric Ignition, multifunction oven system, digital timer, warmer drawer, double glass door, Roast Pan and Bake Trays included, Variable Burner Control, Flame Failure Safety Device, Cast Iron Pan Supports, Electric Oven with Bake and Grill Function	No.	1			
<b>12.1.16</b>	<b>Stainless Steel Cooker Hood</b> Supply and installation stainless steel cooker hood consist of 2 LED lights, 2 Aluminum filters, Charcoal filter, 3-speed fan, Push-button controls and etc.	No.	1			
<b>TOTAL BILL No. 12.1 CARRIED TO PRICE SUMMARY PAGE</b>						

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ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
<b>12.2</b>	<b>LP GAS INSTALLATION</b> Copper pipe: capillary type copper tube fittings to <b>SANS 1067 Part 2</b> including cutting, reaming and soldering of joints with hard type solder and pipe supports as specified. <b>NOTE:</b> Straight couplers, fitting reducers and bends up to 28 diam will not be measured as separate items and are to be included in the rates for straight piping. Supply, delivery to site and installation to <b>SANS 1453</b> copper pipe work Class as specified.					
<b>12.2.1</b>	<b>Copper Pipe</b> LPG Piping + Hydraulic Saddle					
12.2.1.1	15 mm	m	5			
12.2.1.2	22 mm	m	25			
<b>12.2.2</b>	<b>Copper Pipe Fittings</b> Elbow 90°					
12.2.2.1	15 mm	No.	2			
12.2.2.2	22 mm	No.	5			
<b>12.2.3</b>	<b>Couplers</b>					
12.2.3.1	15mm	No.	1			
12.2.3.2	22 mm	No.	4			
<b>12.2.4</b>	<b>Tees</b>					
12.2.4.1	15mm	No.	1			
12.2.4.2	22 mm	No.	1			
<b>12.2.5</b>	<b>Reducer</b>					
12.2.5.1	22 to 15 mm	No.	1			
<b>12.2.6</b>	<b>Pipe Identification and Colour Coding and Earthing</b>					
12.2.6.1	Application of colour banding and flow directions as per <b>SANS 0224</b> and <b>SANS 06</b>	Sum	1			
12.2.6.2	Bonding to earth of all piping at entrance to each building as per <b>SANS 0224</b>	Sum	1			
<b>12.2.7</b>	<b>Fittings</b>					
12.2.7.1	Isolating valves 15 mm	No.	2			
12.2.7.2	Isolating valves 22 mm	No.	4			
12.2.7.3	Flexible connections	No.	2			
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**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

**NB** All materials must be of South African manufacture. The Mechanical Subcontractor must submit proof of unavailability where this requirement cannot be fulfilled. All material supplied to have a minimum of twelve month guarantee and warranty.

**100% OF MATERIAL OR GOODS AND SERVICES MUST BE PROCURED WITHIN THE BOUNDARIES OF THE EASTERN CAPE AND MUST BE MARKED "ECP"**

ITEM	DESCRIPTION	UNIT	QNTY	RATE		AMOUNT
				SUPPLY	INSTALL	
Brought Forward from Previous Page						
<b>12.2.8</b>	<b>Manifolds</b> Supply, install, test and commission cylinder bank manifolds c/w isolating / non return valves, pigtails, primary regulators, safety valves valve vents, purge and test cocks, gauges, new service point and all other ancillaries.					
12.2.8.1	1 x 1 Bottle manifold for 48 Kg	No.	1			
12.2.8.2	1 x 1 Bottle manifold for 19 Kg	No.	1			
<b>12.2.9</b>	<b>Gas Bottle Cage</b> Supply, install, test and commission cylinder bank hot dip galvanised cage, all as specified.					
12.2.9.1	1 x 1 Bottle manifold for 48 Kg	No.	1			
12.2.9.2	1 x 1 Bottle manifold for 19 Kg	No.	1			
<b>12.2.10</b>	<b>Documentation</b> Submit complete approval and release forms from local Fire Authority.					
		No.	3			
<b>12.2.11</b>	<b>Cylinders</b>					
12.2.11.1	Deliver to site and installation of 48 kg LPG cylinder.	No.	2			
12.2.11.2	Deliver to site and installation of 19 kg LPG cylinder.	No.	2			
<b>12.2.12</b>	<b>Sleeve</b> Supply, install, test and commission PVC sleeve through brick and cavity wall, sealing of sleeve after installation is complete and all as specified.					
12.2.12.1	20mm	No.	1			
12.2.12.2	25 mm	No.	1			
<b>TOTAL BILL No. 12.2 CARRIED TO PRICE SUMMARY PAGE</b>						

**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

ITEM	DESCRIPTION	UNIT	QNTY	RATE
	<b><u>BILL No. 11 : ADJUSTMENTS TO N/S CONTRACT VALUE</u></b>			
1.0	An adjustment to the contract value resulting from a contract instruction for additional work not covered by the rates in the n/s priced document shall be determined in terms clause 32.0 of the JBCC Series 2000. <b>NOTE: For the Public Sector Clause 3.2.2 is deleted</b>			
2.0	Rates excluding mark-up for adjustment to the contract value under clause 32.2.3			
2.1	<b><u>Labour</u></b>			
2.1.1	Master Electrician			
(a)	Normal time	Hour	1	
(b)	Week overtime	Hour	1	
(c)	Sunday	Hour	1	
(d)	Public Holidays	Hour	1	
2.1.2	Licensed Electrician			
(a)	Normal time	Hour	1	
(b)	Week overtime	Hour	1	
(c)	Sunday	Hour	1	
(d)	Public Holidays	Hour	1	
2.1.3	Artisan			
(a)	Normal time	Hour	1	
(b)	Week overtime	Hour	1	
(c)	Sunday	Hour	1	
(d)	Public Holidays	Hour	1	
2.1.4	Apprentice stage 1			
(a)	Normal time	Hour	1	
(b)	Week overtime	Hour	1	
(c)	Sunday	Hour	1	
(d)	Public Holidays	Hour	1	
2.1.5	Apprentice stage 2			
(a)	Normal time	Hour	1	
(b)	Week overtime	Hour	1	
(c)	Sunday	Hour	1	
(d)	Public Holidays	Hour	1	
2.1.6	Apprentice stage 3			
(a)	Normal time	Hour	1	
(b)	Week overtime	Hour	1	
(c)	Sunday	Hour	1	
(d)	Public Holidays	Hour	1	

**NOTE: ITEMS ENTERED ON THIS PAGE ARE NOT CARRIED FORWARD TO PRICE SUMMARY**

**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

ITEM	DESCRIPTION	UNIT	QNTY	RATE
2.1.7	Econop 1			
(a)	Normal time	Hour	1	
(b)	Week overtime	Hour	1	
(c)	Sunday	Hour	1	
(d)	Public Holidays	Hour	1	
2.1.8	Econop 2			
(a)	Normal time	Hour	1	
(b)	Week overtime	Hour	1	
(c)	Sunday	Hour	1	
(d)	Public Holidays	Hour	1	
2.1.9	Econop 3			
(a)	Normal time	Hour	1	
(b)	Week overtime	Hour	1	
(c)	Sunday	Hour	1	
(d)	Public Holidays	Hour	1	
2.1.10	Electrician Assistant			
(a)	Normal time	Hour	1	
(b)	Week overtime	Hour	1	
(c)	Sunday	Hour	1	
(d)	Public Holidays	Hour	1	
<b>2.2</b>	<b><u>Materials</u></b>			
2.2.1	At cost. Invoices to be submitted as proof			
<b>2.3</b>	<b><u>Transport</u></b>			
2.3.1	0,5 ton bakkie	km	1	
2.3.2	1 ton bakkie	km	1	
2.3.3	3 ton bakkie	km	1	
2.3.4	Crane truck	Hour	1	
2.3.5	Other (Specify)			
<b>2.4</b>	<b><u>Plant</u></b>			
2.4.1	100W - 500W Drilling machine	Hour	1	
2.4.2	Angle Grinder	Hour	1	
2.4.3	Cutting Disc	Hour	1	
2.4.4	Rock Breaker	Hour	1	
2.4.5	Chasing machine	Hour	1	
2.4.6	Generator	Hour	1	
2.4.7	Vacuum cleaner for dust extraction from grinder	Hour	1	
2.4.8	Other (Specify)	Hour	1	

**NOTE: ITEMS ENTERED ON THIS PAGE ARE NOT CARRIED FORWARD TO PRICE SUMMARY**

**1323 IDT ASIDI SCHOOLS, RIVERVIEW PS: ELECTRICAL AND MECHANICAL INSTALLATION**

**PRICE SUMMARY PAGE**

ITEM NO.	DESCRIPTION	AMOUNT
1	PRELIMINARY & GENERAL	
2	DISTRIBUTION BOARDS	
3	CABLING & CABLE SLEEVES	
4	CONDUITING & CONDUCTORS	
5	GENERAL LIGHTING	
6	GENERAL SMALL POWER	
7	TELEPHONE & DATA SYSTEM	
8	LIGHTNING PROTECTION SYSTEM (LPS) TO STRUCTURES	
9	SUNDRY ITEMS	
10	INTERCOM/PUBLIC ADDRESS SYSTEM	
11	PROVISIONAL SUMS	
12	MECHANICAL INSTALLATION	
12.1	KITCHEN CANOPY VENTILATION & KITCHEN EQUIPMENT	
12.2	LP GAS INSTALLATION	
SUBTOTAL		-
Add Contingency		R 100 000.00
<b>TOTAL ELECTRICAL SUB-CONTRACT AMOUNT EXCLUDING VAT CARRIED OVER TO FINAL SUMMARY</b>		

**NOTE:**

The principal contractor must include any Profit and/or Attendance on this Electrical sub-

We, the undersigned, declare that the above price includes all labour, materials, equipment

We also undertake, should we be awarded the contract, to complete the works within the

ELECTRICAL SUB-CONTRACTOR: .....

CIDB NUMBER: .....

COMPANY NAME : .....

ADDRESS: .....

DATE : .....

## **Section 4 – Tender Drawings**

## TENDER DRAWINGS

The following tender drawings are attached to this document

<b>Drawing No.</b>	<b>Revision No.</b>	<b>Title</b>	<b>Size</b>
1. 1323Ri-T-E-100	00	Site Plan – Electrical Layout	A3
2. 1323Ri-T-E-101	00	Admin and Dining & Nutrition Block – Lighting & Power Layout	A3
3. 1323Ri-T-E-102	00	Media Centre & Science Lab Class (MED-D & SCIE-D)– Lighting & Power	A3
4. 1323Ri-T-E-103	00	Multi-Purpose Class (MPC-D) – Lighting & Power Layout	A3
5. 1323Ri-T-E-104	00	Grade-R (Grade-R-D) and Grade- R Ablutions – Lighting & Power Layout	A3
6. 1323Ri-T-E-105	00	2-Classroom Block (CL-2D) – Lighting & Power Layout	A3
7. 1323Ri-T-E-106	00	Ablution Block (VIP1 & VIP2) – Lighting Layout	A3
8. 1323R-T-E-301	00	MDB, DB-MC, DB-GR, DB-VIP3, DB-VIP2, DB-VPI1, DB-DNC & DB-CL2D : Schematic Diagrams	A3

# INDEPENDENT DEVELOPMENT TRUST

AT

## COMPLETION OF RIVERVIEW PRIMARY SCHOOL

### C3 Scope of Work

#### 1 DESCRIPTION OF THE WORKS

##### 1.1 Extent of the Works

The employer's objective is to provide:

The scope of works involves the following to facilitate a Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings:

- a. Administration and Nutrition Block
- b. Grade R Classroom Block
- c. Two Classroom Block and Storerooms (x2)
- d. Computer, Library and Science Classroom Block
- e. Multi-Purpose Centre and Store Block

Conventional construction to be utilised for the following facilities:

- f. Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet)
- g. Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet)
- h. Grade R Toilets Block (3 x Toilets)
- i. External Works consists of the following:
  1. Demolitions and removal of existing works
  2. Platform
  3. Walkways, ramps, stairs, concrete infill areas
  4. Gabion retainer walls
  5. Entrance wall
  6. Refuse room
  7. Stormwater
  8. Sewerage
  9. Water supply
  10. Sand pit and undercover play area
  11. Parking Area
  12. Perimeter fencing of 386 linear meters
  13. Internal Fencing separating Grade R as well as the Elevated Water Tank of 108 linear meters
  14. Jungle gym
  15. Landscaping
  16. Electrical Works

##### 1.2 Location of the works

Riverview Primary School, Kasa Location, Kasa, Elliotdale, Amathola District Municipality (32.053985° S; 28.612954° E)

## INDEPENDENT DEVELOPMENT TRUST

Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.

Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets)

### C4.1 Site Information

<b>Project title:</b>	<b>COMPLETION OF RIVERVIEW PRIMARY SCHOOL</b>
<b>Bid No:</b>	<b>DOEEC/04/2022/2023</b>

#### Location of the works

Riverview Primary School, Kasa Location, Kasa, Elliotdale, Amathola District Municipality (32.053985° S; 28.612954° E)

A compulsory Site Visit will take place on **Tuesday, 21 June 2022 @ 11h00**, where the items below as well as any further items the bidder wishes to discuss, will be dealt with by the Principal Agent and Client.

- i) Improvements on site**
- ii) Results of soil investigations**  
Geotechnical Report: Information can be obtained from the Civil Engineers
- iii) Underground services** – To be discussed on site
- iv) Adjacent buildings** – The site is situated next to an existing school.
- v) Environmental issues** – To be confirmed on site.
- vi) Any other matters that could have an influence on construction activities.**



# INDEPENDENT DEVELOPMENT TRUST

## C4.2 Project Health and Safety Specification

# INDEPENDENT DEVELOPMENT TRUST

## C4.3 HIV/AIDS Specification

### 1. Scope

This generic specification contains requirements applicable to the reduction of the risk of transfer of the HIV virus between and among construction workers and the local community through the following four categories:

- a) Raising awareness about HIV/AIDS;
- b) Providing construction workers with access to condoms;
- c) HIV counseling, testing and referral services; and
- d) Sexually Transmitted Infection diagnosis and treatment.

### 2. Normative references

The following standard contains provisions that, through reference in this text, constitute provisions of this standard:

SANS 4074 ISO 4074, *Condom Rubbers*

### 3. Definitions and Abbreviations

#### 3.1 Definitions

**Construction worker:** all persons in the employ of the contractor or in the employ of any of the subcontractors contracted by the contractor.

**Local community:** The communities' local to the site which are most likely to have contact with the construction worker and, in particular, sex workers in those communities.

**Service provider:** the natural or juristic person recognised by the South African Department of Roads and Public Works as specialist in conducting Aids Awareness Programmes.

#### 3.2 Abbreviations

**STI:** Sexually transmitted infection

**HIV:** Human Immunodeficiency Virus

**AIDS:** Acquired Immune Deficiency Syndrome

### 4. Objectives

The objectives are to:

- a) Reduce the risk of transfer of the HIV virus between and among construction workers and the local community.
- b) Raise awareness amongst construction workers and the local community of the risk of infection with the HIV virus.
- c) Promote early diagnosis; and
- d) Assist affected individuals to access care and counseling.

### 5. Requirements

#### 5.1 General requirements

The contractor shall, in order to satisfy the objectives stated in 4:

- a) Make condoms complying with the requirements of SABS ISO 4074 available to all construction workers at readily accessible points on the site, suitably protected from the elements, for the duration of the contract.
- b) Either place and maintain HIV/AIDS awareness poster of size of not less than A1 in areas which are highly trafficked by construction workers, or provide construction workers with a pamphlet, in languages largely understood by construction workers, which
- c) Encourage voluntary HIV/STI testing.
- d) Provide information concerning counseling, support, and care of those that are infected services; and
- e) Comply with the requirements of 5.2

## 5.2 HIV awareness programme

- 5.2.1 The contractor shall:
  - a) Once the contractor have established site, he/she must go to the local Community Health Centre and report the project and that he will be recruiting local labour and that he/she would want them to conduct the HIV training and awareness.
- 5.2.2 The contractor shall do nothing to dissuade construction workers from attending such an HIV Awareness Programme and shall take all reasonable steps to ensure that a minimum of 90% of construction workers engaged in the works attend such a programme, when it is conducted.
- 5.2.3 The outcomes of the HIV Awareness Programme shall as a minimum, result in contract workers exposed to such a programme being able to:
  - a) Communicate the existence of problems of HIV and be able to outline the consequences of transmission of HIV to or from the local community.
  - b) Recall and communicate the mode of HIV transmission and preventative measures including the proper use of the condom.

**The HIV/AIDS awareness programme described in 5.2 is to be done once off at the start of the contract.**

## 5.3 Reporting

- 5.3.1 The contractor shall prepare and attach to his claims for payment a brief report which outlines how the actions taken by the contractor in the period for which payment is claimed satisfy the requirements and a schedule which lists the names, identity numbers, trade / occupation and name of employer of all construction workers exposed to the programme (see HIV/STI Compliance Report)
- 5.3.2 The employer's representative shall certify the report and schedule described in 5.3.1 whenever a claim for payment is issued to the employer.

**Note: In the event that the contractor fails to satisfy the requirements of this specification, the employer may apply any of the sanctions provided for the contract. Sanctions may include the application of a financial penalty of 0.05% of the Contract Sum.**

The HIV/AIDS awareness programme described in 5.2 shall in addition be conducted for the benefit of the local community on one occasion in the community centre nearest to the building site. The contractor shall be responsible for inviting identifiable community-based institutions and organizations, churches, and schools to participate in the programme.

# **PROJECT HEALTH AND SAFETY SPECIFICATION**

In terms of the Construction Regulations (2014)

## **CLIENT:**

**Independent Development Trust (IDT)**

## **DESCRIPTION OF PROJECT WORKS:**

**Riverview Primary School**

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- DEFINITIONS
- KEY ROLE PLAYERS
- KEY REFERENCES
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- 2. GENERAL REQUIREMENTS
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- 7. NON-CONFORMANCES
  - 7.1 Failure to Comply with Provisions
- 8. MEASUREMENT AND PAYMENT

## LIST OF ABBREVIATIONS

AIA	Approved Inspection Authority
BoQ	Bill of Quantities
CC	Compensation Commissioner
CHS	Construction Health and Safety
CHSA	Construction Health and Safety Agent
CHSO	Construction Health and Safety Officer
CR	Construction Regulations ( Gazette 10113 of 07/02/2014)
IDT	Independent Development Trust
DMR	Driven Machinery Regulations
DoL	Department of Labour
FEMA	Federated Employers Mutual Association
GAR	General Administration Regulations
GSR	General Safety Regulations
HCSR	Hazardous Chemical Substances Regulations
HIRA	Hazard Identification Risk Assessment
H&S	Health and Safety
ER	Engineer's Representative
LI	Labour Intensive
OH	Occupational Health
OHS	Occupational Health and Safety
OHSA	Occupational Health and Safety Act No. 85 of 1993 (as amended)
OHSS	Occupational Health and Safety Specification
PA	Principal Agent
PSHSS	Project Specific Health and Safety Specification
PC	Principal Contractor
PPE	Personal Protective Equipment
SANS	South African National Standards (Authority)
SDS	Safety Data Sheet
SMME	Small, Micro, Medium Enterprise
SWP	Safe Work Procedure

## INTRODUCTION AND DEFINITIONS

The definitions used will be those set out in the Regulation Gazette No 10113 of 7 February 2014 with the following additions:

PLEASE NOTE THAT THE REQUIREMENTS OF THE NEW CONSTRUCTION REGULATIONS 2014 WILL BE IN EFFECT FROM 7TH AUGUST 2014. THE NEW REGULATIONS PLACE ADDITIONAL LEGAL DUTIES UPON PRINCIPAL CONTRACTORS AND CONTRACTORS. ALTHOUGH THIS HEALTH AND SAFETY SPECIFICATION INCLUDES MUCH OF THE CONTENT OF THESE NEW REQUIREMENTS, THE CONTRACTOR WILL BE DEEMED TO BE FAMILIAR WITH THE REQUIREMENTS OF THESE REGULATIONS, AND TO HAVE FACTORED IN ALL THE DUTIES PLACED UPON CONTRACTORS AND PRINCIPAL CONTRACTORS IN THE TENDER. A COPY OF THE REGULATIONS CAN BE VIEWED ON THE DEPARTMENT OF LABOUR'S WEBSITE.

This Health and Safety Specification contains clauses that are generally applicable to construction activities, as well as imposing pro-active controls associated with activities that impact on Health and Safety as it relates to plant and machinery. Compliance to the requirements of the Occupational Health and Safety Act 1993 is in addition to the

requirements of this Health and Safety Specification and is part of the Contractor's responsibility. The Client will monitor that the Contractors comply with the requirements of such legislation.

PLEASE NOTE THAT IN THIS HEALTH AND SAFETY SPECIFICATION, THE TERM "PRINCIPAL CONTRACTOR" HAS THE SAME MEANING AS THE WORD "CONTRACTOR" IN THE GENERAL CONDITIONS OF CONTRACT 2010. ALL REFERENCES TO CLIENT IN THIS HEALTH AND SAFETY SPECIFICATION ALSO REFER TO CLIENT AGENT, WHERE SO APPOINTED

**Client:** Independent Development Trust

**Construction Health and Safety Agent:**

A person appointed by the Client to carry out the duties of the Client in respect of Occupational Health and Safety on the Project in terms of Regulation 5 sub regulations (5) and / or (6)

**IDT:** Independent Development Trust

**Designer:** Means a competent person appointed by the Client as Agent to design, supervise and monitor construction on their behalf.

**Hazard:** Source of exposure to danger

**Hazard Identification and Risk Assessment (HIRA) and Risk Control:**

Means a documented plan, which identifies hazards, assesses the risks and details the control measures and safe working procedures which are to be used to mitigate and control the occurrence of hazards and risks during construction or operation phases.

**Health and Safety Agent:**

Means any person who acts as a representative for the Client in managing the overall health and safety work as their responsible person.

**Health and Safety Plan:**

Means a documented plan which answers to the Project Specific Health and Safety Specification; including all the supporting documentation that indicate how the Principal Contractor or Contractor plans to manage H&S for the duration of the Contract.

**Induction Training:**

Means once off introductory training on general health and safety issues given to all employees and visitors to the site before commencement of work on site.

**Principal Agent**

Means a competent person appointed by the Client to design, supervise and monitor the construction on their behalf.

**Risk:** Means the probability or likelihood that a hazard can result in injury or damage.

**Regulation/s:**

Shall mean the relevant regulation/s promulgated in terms of the Occupational Health and Safety Act, No. 85 of 1993.

**Site:**

Means the area in the possession of the Principal Contractor for the construction of the works. Where there is no demarcated boundary it will include all adjacent areas, which are reasonably required for the activities for the Principal Contractor, and approved for such use by the Designer.

**The Act:**

Means, unless the context indicates otherwise, the Occupational Health and Safety Act, No. 85 of 1993 and Regulations promulgated thereunder, as amended.

**KEY REFERENCES**

Occupational Health and Safety Act No. 85 of 1993 and Construction Regulations 2014 & other relevant Regulations

Compensation for Injury and Occupational Diseases Act No. 100 of 1993 (as amended)

Joint Building Conditions of Contract (JBCC)

Project Health and Safety Specification

**1. PREAMBLE**

Historically, the Building or Construction Industry has had poor health and safety record. Due to the complex and potentially dangerous operations being undertaken, there is a high risk of incidents and injuries. In many instances, poor adherence to the Occupational Health and Safety Act (OHSA) has resulted in severe consequences for Health and Safety performance. Independent Development Trust (IDT) is determined that the highest health and safety standards are implemented and full commitment from all parties to achieving best practice is required.

To achieve this goal, IDT has prepared this Occupational Health and Safety Specification. The OHS Specification sets out guidelines and minimum levels of awareness and guidance for health and safety requirements. Contractual responsibility for adhering to these requirements rest with the Contractors. The Client is committed to ensuring the highest health and safety standards for all work undertaken on this construction site.

**1.1 Purpose of the Project Specific Health and Safety Specification (PSHSS)**

The PSHSS is a performance specification to ensure that the Client and any bodies that enter into formal agreements with the Client viz. Agents, Professional Service Consultants (Architects), Principal Contractors and Contractors achieve an acceptable level of OHS performance. No advice, approval of any document required by the PSHSS, such as hazard identification and risk assessments, or any other form of communication from the Client shall be construed as acceptance by the Client of any obligation that absolves the Principal Contractor from achieving the required level of performance and compliance with legal requirements. Furthermore, there is no acceptance of liability by the Client, which may result from the Principal Contractor failing to comply with the PSHSS, i.e. the Principal Contractor remains responsible for achieving the required performance levels.

A Mandatory Agreement in terms of Section 37.2 of the OHSA will be signed between parties prior to any works commencing.



The PSHSS highlights the aspects to be implemented over and above the minimum requirements of current legislation. Requirements may be changed should new risks or issues are identified that could not have been foreseen during the design phase of the project, or during the construction phase. Any new legislation or standards (legislated, or determined by IDT) that are promulgated or accepted during the contract will automatically be applied.

It should be noted that this OHSS in no way relieves the Contractor of any of his responsibilities set out in the Act and Regulations

## **1.2 Implementation of the Project Specific Occupational Health and Safety Specifications (PSHSS)**

The project specific H&S specification (PSHSS) forms an integral part of the Contract, and PCs are required to make it an integral part of their Contracts with Contractors and Suppliers. A PSHSS will be available for each level of Contract and Contractor, and must be complied with.

This specification must be read in conjunction with the OHSA, Regulations (as amended) and any other standards relating to work being done, and ensure compliance thereto. The information relative to the scope of the project, the works etc. are detailed in the tender, are to be considered when developing the H&S plan and associated documentation. The summary of risks is included in this document.

The OHSA S.37.2 Mandatory Agreement must be fully completed by the PC, supplied by the Client. These documents shall be deemed to form part of the returnable Contract Documents.

No work may commence without written approval of the H&S plan by the CHS Agent, or the responsible person in IDT.

Should there be design changes, or change in the scope of works, an amended PSHSS may be issued. Where amended PSHSSs are issued, the PC will be required to ensure a resubmission of an amended H&S plan for approval. Further to this, the PC must ensure that similar information must be provided as it applies to the works to all their Contractors, within 5 working days following notification thereof. Such design changes.

The CHS Agent will visit the project as deemed necessary by the Principal Agent and the CHS Agent to ensure compliance and limit risk. All activities on the site and all appropriate documentation will be monitored and reported on to the Client and the Principal Agent.

Non-conformances will be issued and penalties or work stoppage will be issued where appropriate. Communication between the CHS Agent and the PC will be through the Principal Agent (or Client's responsible person) as determined at the commencement of the project.

## **1.3 Requirements at Bid Stage**

Tenderers are required to submit a project specific pre-tender H&S plan with their Tender submission.

The documentation submitted will be used to assess the competence of the tenderer, as required in the CRs, therefore the information submitted needs to be complete and as close as possible to the final product.

A tender stage OHS score sheet is attached. Failure to achieve the required score will render the tender non-responsive.

Adequate pricing for H&S is required, and the appropriate section in the BoQ is to be completed. Failure to do so could result in the Tender being regarded as non-responsive.

The PC shall ensure adequate information is submitted as supporting documentation with his completed Tender. Such information will be assessed against the criteria listed and a score provided to the Bid Award Committee (BAC) for consideration. Failure to provide such information could render the tender application non-responsive.

A project specific H&S Plan in response to this PSHSS will be subject to approval by the CHS Agent. This must include all supporting documentation as required to verify the H&S system:

- A declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Occupational Health and Safety Act and its Regulations;
- A valid Letter of Good Standing;
- Incident Investigation Reports for other projects of a similar nature undertaken by the tenderer
- Claims ratio receipt from FEM or the Compensation Commissioner for the previous review period;
- Detailed technical method statements for approval by the PA and appropriate risk assessments and safe work procedures for approval by the CHS Agent or Client:
  - Site establishment including:
    - Clearing and grubbing;
    - Exposure of services, power, telecommunication etc.;
    - Arrangements for hoarding, traffic accommodation;
  - An emergency plan indicating how and where emergencies will be handled

Further method statements are to be submitted prior to, and during the project where changes or new work is required, and the approval of the PA/Client is required before work on that aspect or activity can commence.

The CHS Officer is to be included in production planning sessions/meetings to ensure that the appropriate risk assessments, safe work procedures and communication required are available and completed timeously. Penalties will be applied should this not be adhered to, and deemed a serious offence.

## 2. GENERAL REQUIREMENTS and KEY INFORMATION

### Project Directory:

Project Client	IDT P.O. Box 2679 5090	Tel: 043 711 6000
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Client's Representative	Ngonyama & Associates 13 Lukin Road Selborne East London, 5247	Tel: 043 743 3889
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Contact Person:	Mr. D. Felton
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Client's H&S Agent	Mink-Line Consulting 55 Beaconsurst Drive Beacon Bay East London, 5241	Tel: 043 748 5773/ 082 080 7791
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Contact Person:	Thembelani Mrwetyana
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### Description of Works:

#### Scope of Works:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings:

- a. Administration/Nutrition Block Block
- b. Grade R Classroom Block
- c. Two Classroom and Store Blocks (x2)
- d. Computer/Library/Science Classroom Block
- e. Multi-Purpose Centre and Store Block

Conventional construction to be utilised for the following facilities:

- f. Female staff, Learners, Paraplegic Toilet Block
- g. Learners & Educator's Toilet Block
- h. Grade R Toilets Block
- i. External Works consists of the following:
  1. Demolitions and removal of existing works
  2. Platform
  3. Walkways, ramps, stairs, concrete infill areas

4. Gabion retainer walls
5. Entrance wall
6. Refuse room
7. Stormwater
8. Sewerage
9. Water supply
10. Sand pit and undercover play area
11. Parking Area
12. Perimeter fencing
13. Internal Fencing at some areas
14. Jungle gym
15. Landscaping

## 2.1 Summary of Risks identified during Design

The intention of the summary of findings from the design risk assessment is to highlight the residual risks identified during the design phase. The full design risk assessment can be found in the tender document.

The summary of risks provided is to point the contractor towards some risks he may not be aware of during tendering stage and while developing his formal risk assessments for the project.

The design risks and the management thereof should be included in the Principal Contractors (PC) risk assessments. Where there are other Contractors appointed to do work, the PC is to ensure that Contractors include such information in their risk assessments.

***The summary is to be developed following the completion of the Design risk assessment, and to include the residual risks as they apply to the project. The items noted are for information only and must be expanded on as required by the project.***

PHASES OF THE PROJECT	RESIDUAL RISKS IDENTIFIED TO BE MANAGED
Services	Note presence of Eskom, Telkom, Water reticulation
Movement of Construction Vehicles	MVA
Traffic Accommodation	MVA

## 2.2 Specified Hazardous Chemical Substances

The following lists of products or substances are those which have been identified as likely to be used on the project. This list is not inclusive and other products may be considered. Where the PC is likely to supply the product as the product has not been specified, materials data sheets (MDSs) need to be considered prior to all selections.

<b>PRODUCTS/SUBSTANCES/RISKS</b>	<b>POTENTIAL HEALTH OR OTHER RISKS</b>
Cement	<ul style="list-style-type: none"> <li>• Hand mixing may occur, 50kg bags are an ergonomic risk from handling.</li> <li>• Pumping of concrete may occur exposure to extensive vibration, extended hours of work, and potential eye, skin and respiratory irritant from dust exposure, chromates.</li> </ul>
Cement/Silica dust	Caused by cutting, grinding, sanding of any concrete/granite/tiled surface/masonry.
Petrol/diesel/lubricants	Potentially a fuel bowzer on site. Fire, spillage, fumes

### **3. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT**

#### **3.1 Structure and Organization of H&S Responsibilities**

##### **3.1.1 Notification of Commencement Of Construction Work**

The PC shall notify the Provincial Director of the Department of Labour (DoL) in writing, in the form of the Annexure A in the CRs. This shall occur after award of the contract, but before commencement of construction work. Proof of submission and/or receipt must be provided and kept in the H&S file.

It should be noted that this OHSS in no way relieves the Contractor of any of his responsibilities set out in the Act and Regulations

Work will not commence without the Notification being correctly completed and signed by the Client and proof of receipt by the Department of labour received. The Notification shall only be signed by the Client following the approval in writing by the CHS Agent, or the Client.

Where changes to the conditions given in the submission are required (i.e. Contractors, completion dates, increase in workers), a revised Annexure A must be submitted to the Department of Labour. The completion date is to include the defect and liability period. A copy of the notification form and any further submissions/correspondence must be kept in the H&S file.

### **4. HEALTH AND SAFETY PLAN FRAMEWORK**

The H&S aspects related to the project outlined in the previous sections are to be taken into account when drawing up the H&S Plan. The PC is required to demonstrate competence by providing an H&S system that will address the requirements of the project.

The current legislative requirements, OHS Specification, Scope of Works, Existing Conditions and any other standards that may guide practice are to be taken into consideration. The following aspects must be addressed in the H&S Plan, as they have been identified as playing a role in reducing the overall risk of a particular activity, or section of the project. The CHS Agent may from time to time request additions or systems as they relate to the works or legislative requirements at the time.

The PC is to prepare a site layout drawing to indicate at least the following:

- The positions of site offices of all Contractors, toilets, drinking water and worker rest areas;
- Indicate the positions of emergency personnel and equipment (fire, first aiders, first aid posts);

- Protection of plant and pedestrians, indicate parking, and
- Storage areas (materials and equipment, waste etc.)
- Access and egress to site for deliveries and intended temporary traffic management
- Emergency assembly point

Such layouts are to be updated regularly throughout the project.

#### 4.1 Appointment of Competent Site Personnel

The CEO (OHSA S16.1) of the PC will take overall responsibility for the appointment of competent site staff for the duration of the project. Should the CEO not be personally involved in the project, the H&S responsibilities are to be delegated to the CEO Assignee (OHSA 16.2). Knowledge and training in H&S is required, and certificates indicating H&S training as well as experience to be included in CVs.

All other legal appointments are to be made with relevance to the type of work required and kept current with the project programme. The construction team is to ensure the appointed CHS Officer is kept up to date with all planned activities, to ensure all H&S requirements are met.

All construction/technical method statements are to be generated by senior site personnel, and the appropriate risk assessments developed therefrom in conjunction with the CHS Officer.

The Occupational Health and Safety Plan shall include the following, but is not limited to the following key appointments:

##### 4.1.1 Construction Supervision

Competent Construction Manager will be appointed to manage part or all of the works and have training and/or experience in the area of responsibility. All site supervisors must show evidence of appropriate training in H&S, and an understanding or training in areas of responsibility (i.e. risk assessments, method statements etc.).

Multiple competent Assistant Construction Managers may be appointed where justified by the scope and complexity of the works.

Curriculum Vitae (CVs) are to be submitted for approval by the PA, and/or Client. The Supervisor will be held responsible for the safety of working teams and subordinates, housekeeping and stacking and storage of materials.

##### 4.1.2 Construction Health and Safety Officer

The PC will employ at least one competent, full-time CHS Officer for the duration of the contract. The CHS Officer's CV is to be submitted for approval by the CHS Agent or the Client, at time of tender. The PC is to ensure adequate resources are provided in order to undertake all responsibilities (i.e. mobile phone, computer and internet access, vehicle etc.).

The CHS Officer will be required to provide proof of registration as a Construction Health and Safety Officer with SACPCMP (***note: letters of application shall not be permitted***).

This person may not hold any other position on the site staff.

The site supervisor may not act as the CHS Officer.

The CHS Officer/s will be held responsible for all H&S on the project.

- Senior site staff and supervision, Contractors are to follow systems, instructions etc. given by the CHS Officer at all times;

- No new workers or Contractors may commence work without approval or following the H&S plan as submitted, and
- No inductions of Contractor staff until the H&S documentation is approved by the CHS Officer.
- The CHS Officer/s may not be removed or replaced without the approval of the CHS Agent, nor may the site be left unattended for more than 1 day without adequate, competent cover.

A monthly report of all H&S activities and incidents is required by the end of the first week of each month, or at a date agreed to by the CHS Agent/Client and the CHS Officer.

The CHS Officer will be responsible for collating the H&S documentation at the close out of the project in electronic format. A list of the typical aspects that should be provided will be provided by the CHS Agent. The PC is to ensure that all Contractors documentation follows the same requirements and closed out H&S documentation must be completed and be available with the close out of the main contract.

Failure to do so will be considered a serious offence and penalties applied.

#### **4.1.3 Traffic Safety**

The CHS Officer will be responsible for ensuring that daily traffic management is adequately managed.

No worker may be transported in, or on the rear of construction vehicles (bakkies included), or with plant and materials to, on, or from site. The number of passengers in any vehicle is limited to what is stated on the license disc. Vehicles used to transport workers to, from, or on site, shall have secure seats and be covered. No canopies may be used.

Tenderers must indicate in their OHS plans what type of transport is envisaged and how this will be managed.

Where there is an interface between the works and any public thoroughfare, typical traffic accommodation drawings will be provided by the Designer for general traffic management. The PC is to draw up a traffic accommodation plan for approval by the Designer. The standards of the SARTSM Ch. 13 Vol. 2 will be used. Any changes suggested, or required are to be discussed and approved by the Designer or OHS Agent. Additional care must be taken where workers and public interface.

Penalties will be issued for non-compliances noted.

#### **4.2 Health and Safety Representatives and H&S meetings**

H&S Representatives representing workers and Contractors are to be appointed following the start-up of the project, irrespective of the number of workers on site. The appointed H&S Representatives are to be actively involved with H&S and will assist the CHS Officer and site management in meeting legislative duties.

The CHS Officer shall further ensure that H&S is discussed at all internal production or progress meetings. Issues arising from the CHS Agent audits are to be discussed, as well as all H&S related issues.

Minutes are to be kept for all H&S interventions and meetings. Failure to do so will be deemed to be a moderate offence.

### **4.3 Appointment of Competent Contractors**

The Principal Contractor is to ensure compliance with the Client's minimum standards and all legislative requirements. The same H&S standards required of the PC are to be applied to all Contractors. An index of all Contractors and Suppliers is to be on file and kept updated at all times. The PC is to ensure there is sufficient funding for H&S compliance by each Contractor.

The following minimum aspects are applicable to any Contractor appointed:

- The CHS Officer is to ensure a Contractor's appointment and approval of H&S documentation at least seven (7) working days prior to commencing work.
- No Contractor may work under the PC's Compensation registration number. If required the PC may assist SMMEs with their registration with the Compensation Commissioner. However, such Contractors will not be able to commence work until proof of registration or Letter of Good Standing has been received.
- No work may commence without Mandatory agreements between parties in place.

The following aspects are applicable to Suppliers or short-term works (surveying, repairs, servicing, deliveries etc). Cognisance is to be taken of the level of risk involved and the CHS Officer is to ensure the level of H&S documentation is appropriate:

- Mandatory agreements in place
- Letter of Good Standing
- Method statements and risk assessments
- Available information relative to:
  - Load testing and registers for cranes or lifting devices
  - Medical certificates of fitness
  - Safety data sheets (SDSs)

Failure to provide written approval of H&S documentation will be considered a serious offense, and could result in aspects of, or all the activities being stopped and penalties implemented.

## **5. GENERAL RISK MANAGEMENT**

### **5.1 Health Risks and Medical Surveillance**

As some products used in the building work have not been identified, the PC is to ensure the CHS Officer and all supervision is responsible for ensuring the safe use of such products, and their inclusion into method statements and risk assessment. The appropriate MSDSs are to be obtained for all products and used to develop the H&S documentation as they relate to the works.

Many of the processes may be labour intensive and ergonomic risks are to be noted. All workers (including Contractors) are to be included in the medical surveillance programme.

Workers will be exposed to noise, dust, and physical risks from extended periods of work of a repetitive nature, materials specified and the general nature of the works.

Environmental monitoring results and risk assessments are to be made available to the occupational health professionals doing the medical surveillance. The use of occupational risk exposure profiling (OREPS) and job descriptions are to be used to determine specific exposures for management.

All workers (including those of Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work.

Medical surveillance will commence at pre-employment. All workers (including Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work. Annual



medical surveillance is required (unless identified as being required more frequently), as well as an exit medical. Arrangements for keeping medical records for the required time are to be noted. It is preferable that the PC has a medical surveillance plan. Full medical records are not to be placed in the H&S file. A procedure for managing the medical records which require safekeeping for prescribed periods are to be addressed

. Given the potential health risks the following aspects are to be included in each medical surveillance intervention:

- Full medical, surgical and occupational history;
- Full physical examination of all systems; and
- Referral if required for the management of identified health issues that may affect the worker.

Specific testing for existing conditions and limitations relative to exposure could include, but are not limited to:

- Audiometry (hearing tests); and
- Any other tests identified as relevant from chemical or specifically identified risks of exposure

Failure to do so will be considered a serious offence.

### **5.1.1 General Environmental Conditions**

Compliance with the Environmental Regulations (as amended), among others is required. Environmental monitoring of ventilation, lighting and dusts may be deemed to be required by the Approved Inspection Authority used to measure the environment. Copies of the relevant reports and actions taken in respect of these are to be placed in the H&S file.

Testing and reporting for airborne silica as required by the 2008 amendment to the HCS Regulations is required.

### **5.1.2 Noise Risks**

All plant from plant hire companies (suppliers) or that of the PC is to be compliant with the Noise Induced Hearing Loss Regulations. Plant identified that has not been tested and marked for noise emissions will result in having to be tested at the Contractors or PCs expense. Failure to do so within a reasonable time period will result in such plant being removed from site.

Audiometric testing of all workers is noted as required in the medical surveillance programme for all permanent workers prior to work commencing. Temporary labour working in identified noise areas will require testing if the noise levels are indicated on plant or through processes as greater than 85dB. Audiometry records are to be available in the H&S file.

Suitable SANS approved hearing protective equipment shall be issued and worn. Where several items of construction plant are in operation at or near to each other, the noise zone for the combined plant should be established and suitable hearing protective equipment used within this zone

Failure to do so will be considered a serious offence.

## **5.2 Emergency Procedures**

An emergency plan and procedure that is appropriate to the risks is required prior to commencement on site. It is advised that the system should be simple and easy for any worker to follow. The plan may be adapted should new information or risks are identified.

The procedure shall detail the response plan in relation to the works, and include at least (but are not limited to) the following key elements:

- Appointment of a competent emergency response co-ordinator
  - Fire;
  - Public injury, Motor vehicle accidents;
  - Falls from heights;
  - Serious injury to workers (medical or work-related); and
  - Any other major risks identified during risk assessments

The emergency plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project. Local emergency telephone numbers must be displayed and made part of the emergency procedure.

The general principals of emergency management are to be applied as it applies to the hierarchy of control and management.

### **5.2.1 First Aiders and First Aid Equipment**

At least 1 first aider will be trained to Level 3. First aiders shall be available and accessible on site at all times, and be able to work as a team when responding to any emergency on the project.

Contractors are expected to ensure compliance and provide/manage their own first aiders and equipment. The number of First aiders will be determined by the complexity and exposed risks of the project, not numbers of workers

Appropriately stocked first aid kits, at least to the requirements of the Annexure to the GAR, are to be available at all times to assure continual availability and access on site.

### **5.2.2 Fires and Emergency Management**

Attention to emergency planning and procedures is very important. The full emergency plan must form part of the supporting documentation with the H&S Plan. The CHS Agents approval of all emergency plans and procedures is required prior to commencement on site. It is advised that the system should be simple and easy for any worker to follow. The plan may be adapted should new information or risks are identified.

First aiders shall be available in each working team, and be able to work as a team when responding to any emergency on the project.

The procedure shall detail the response plan in relation to the works, and include at least (but are not limited to) the following key elements:

- Appointment of a competent emergency response co-ordinator and wardens;
- Lists of first aiders, and
- Requirement in terms of identified risks:
  - Fire;
  - Explosions;
  - Motor vehicle accidents.

The emergency plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project. The emergency plan is to include the risk of fire on site and related to any specific activities where gas, welding, cutting etc. occur.

Fire extinguishers will be appropriate for the risk and in sufficient numbers to deal with the type of fires that could occur. All mobile plant is to have appropriate, accessible fire extinguishers. Hot work permits are required for any such activities.

### **5.2.3 Incident Management and Compensation Claims**

All incidents and accidents are to be investigated. All serious incidents involving any form of disabling injury or fatality are to be reported to the PA /Client /CHS Agent immediately. This shall be confirmed in writing following the incident. Full details are to be included in each site meeting or when the Client visits site. A summary of incidents is to be included in the monthly report.

Failure to comply with emergency provisions will be considered a serious offence, and the operation or project may be stopped if deemed inadequate for the work at the time of assessment or site inspection.

### **5.3 Personal Protective Equipment (PPE) and Clothing**

The PC is to provide a procedure as an addendum to indicate how PPE is managed within the Company.

The wearing of the identified SANS approved PPE at all times is non-negotiable. The PC shall ensure that all workers (Including Contractors) are issued with and shall wear:

- Protective footwear;
- Overalls that ensure worker visibility.
- Eye protection (if required)
- Hearing protection;
- Reflective jackets (no bibs)
- Respiratory protection (minimum of FF2), and
- Any other necessary PPE identified from SDSs and/or risk assessments.

Adequate quantities of PPE shall be available. This shall include necessary PPE for visitors. The procedures for managing PPE are to be in a formal procedure submitted with the H&S plan for approval.

Any person (including Client, PA etc.) found on site without the necessary PPE will be removed from site until the PPE is supplied and worn.

Failure to comply will result in penalties being applied.

### **5.4 Occupational Health and Safety Signage**

On-site H&S signage is required. Signage shall be posted up at fixed or temporary working areas, or other potential risk areas/operations. These signs shall be in accordance with the requirements of the General Safety Regulations or SANS requirements as amended. Signage is to be noted on the site drawings indicating where fixed/temporary signage is required.

Temporary signage is to include (but not be limited to) the following:

- 'Report to site office' / 'Warning: Construction Site – Keep out' or similar;
- 'Site office' (if relevant);
- First aid box positions (including vehicles); and
- Fire extinguishers.
- Assembly Area

Signs shall be posted at areas of work on site indicating that a construction site is being entered and that persons should take note of H&S requirements.

Note should be taken that "omnibus" signs indicating that the entire site requires PPE should not be used. Any areas where PPE is mandatory must be separately signed.

Failure to comply will result in penalties being applied.

## **5.5 Induction of Employees and Visitors, General H&S Training**

A simple, formal induction programme is to be submitted as an addendum for approval with the H&S plan. Inductions must be carried out for all workers and visitors (including Client, PA) to the site.

Pre-task training is required to ensure workers are familiar with the risks and H&S measures of the work or tasks to be done. Such training is to be done at least daily. Records of inductions and pre-task training are to be kept in the H&S file.

Any person found on site without proof of induction in the H&S File will be removed from site until the proof is supplied and, a penalty issued per non-compliance.

## **5.6 Management of Plant and Equipment**

Close control of plant and equipment is required, including that of Contractors.

Daily monitoring of all plant and equipment is required prior to commencing work. Full lists of hired and own plant are to be available at the CHS Agent's/Client audit. All daily inspection records are to be kept in the H&S file. Plant Hire and Haulage Contractors are to comply with the requirements where plant and equipment is brought onto site. Registers are not to be more than 1 week behind.

Only competent, fit plant operators are to be used. Certificate of Competency for the specific plant and Medical certificates of fitness are required for all operators.

Any plant or slings used to lift plant or material require annual load testing by an AIA, and all certificates must have the testers LMI/E number. Operators are to be adequately trained and certified to operate mobile cranes or crane trucks. Certificates and registers are to be placed in the H&S file.

Movement of plant in closures and in confined working areas is to be closely monitored and managed by the supervisors. The blind spots of plant are to be taken into account and workers and Contractors protected accordingly

Failure to do so will be considered a serious offence.

## **5.7 Excavations**

A procedure for managing excavations is to be provided as an addendum to the H&S plan describing how excavations are to be managed.

Excavation method statements are to be approved by the Designer and associated risk assessments are required. Designs by competent persons are required where ground conditions are deemed to require shoring.

A competent person is to be appointed for managing all excavations. A permit system is to be available and used for all excavations. All equipment and ground conditions to be checked daily, and prior to work commencing.

Excavations should preferably not be open beyond what can be closed daily. Where excavations need to remain open, all excavations are to be properly protected. Adequate stakes with 1m high

demarcation and berms/spoil are required to be a safe distance from the edge of the angle of repose. Candy tape may not be used to demarcate excavations. Cognisance is required of the surrounding area and increased levels of protection are required where work is in communities, near schools and clinics.

Work will be stopped and penalties applied to any work in excavations that is not compliant.

## **5.8 Cranes and lifting equipment**

Should any form of lifting device or crane (fixed or mobile) be used during the project for deliveries, moving of supplies or equipment, the appropriate documentation must be made available. Method statements, risk assessments, safe work procedures and training are to be available prior to work commencing. A procedure for managing loads and lifting must be made available as an addendum to the H&S Plan.

## **5.9 Bulk Mixing Plants**

Whichever form of bulk mixing plant is used, for mixing concrete, guards and protection of nip points, emergency stops etc. are to be appropriately managed by competent supervision. Edge protection, movement of plant and dust management are required, including disposal of cement bags. The layout of the batch plant and movement of plant is to be provided on an appropriate drawing.

The added requirement of Chest X rays for workers is to be added to pre-employment and possibly exit medicals, unless the workers are already on a system of medical surveillance.

### **Mechanical installations**

All mechanical installations are to be carried out in conformity with the manufacturer's instructions. Method statements and risk analyses must be compiled for each type of installation. A competent person must be designated to supervise the work.

## **5.10 Auditing**

Frequency of external auditing by the CHS Agent or Client will be as agreed with the Client and PA but will at least conform to the requirements of the Construction Regulations. The site will be inspected and the documentation audited relative to the activities and H&S plan. The CHS Officer of the PC must accompany the Client, or the CHS Agent, on all audits and inspections. Not all audits will be, or need be announced.

The PC will ensure that all their Contractors are audited at a frequency determined by the CHS Agent. Audit frequency may be increased if Contractors are not performing adequately. Audit results will be acted upon and non-conformances and penalties issued where deemed appropriate. The Client, PA or CHS Agent may act or require further outcomes if non-compliances are noted or unsafe acts are noted on site.

Internal audits are to include site conditions as well as ensuring H&S files are appropriate, and compliant. Comprehensive audit reports are to be made available, the format of the audit reports are to be acceptable by the CHS Agent.

The PC will be audited using a template as supplied in the tender document. The audit template will be adjusted from time to time relative to the activities on site. A similar process is to be used by the PC when auditing their Contractors on site. Compliance with legislative requirements and the systems provided by the PC to manage the H&S on site will be measured. Full compliance is required. Time limits for corrective actions will be set and must be adhered to.

Failure to address findings or non-conformances will be considered a serious offence.

#### **5.11 Communication on Site**

All H&S communication during the project between the CHS Agent and the PC will be done through the PA and be in writing, including the issue and responses to non-conformances and H&S audit results.

Failure to address issues timeously will be considered a serious offence.

#### **5.12 Care of Workers on Site (Welfare)**

Adequate toilets, clean, safe drinking water and decent shelter must be afforded workers at all times. Toilets will be within reasonable distance of workers, or placed with each working team in safe, with reasonable privacy. Hand washing facilities will be provided. Arrangements made where existing facilities are shared with existing users must be made in writing and placed in the H&S file. No substances containing Formaldehyde may be used in Chemical Toilets.

Failure to ensure compliance will be considered a serious offence.

#### **5.17 Discipline, Alcohol and Substance Abuse**

All employees (management included) are to follow instructions given in the interest of H&S. Disciplinary action is to be imposed on those who do not follow such instructions or company rules or policies.

No person is allowed to work or access site if under the influence of alcohol or other substances that could impact on their own or others safety. The PC is to have a drug and alcohol policy available to manage such instances.

These requirements are applicable to any employee of any organization providing services on site. Penalties may also be applied by the Client, OHS Agent or Engineer.

#### **5.18 Electrical Equipment**

In addition to the requirements of the Electrical Machinery Regulations and the General Machinery Regulations any electrical distribution board used for construction work shall be fitted with suitable earth leakage protection. Leads must be properly and firmly connected. Plugs and sockets shall be in good and safe condition.

All electrical apparatus, other than electrical hand tools, shall have a physical "lock out" system which will prevent any operation other than that authorized by a supervisor. A "lock out" sign shall be displayed when the apparatus is not in use.

Method statements and safe work procedures will be required for all work involving electrical apparatus.

### **6. HEALTH AND SAFETY FILE**

The documentation submitted and approved following the awarding of the contract will be used to form the H&S file. The H&S file is required to be laid out in a logical manner, and documentation filed within the file is to be easily accessible.

The following completed information shall be included (but not be limited to) as part of the index:

- The PSHSS;
- The H&S Plan and the approval by Client;
- Appointment by Client;
- Mandatory agreement with Client;
- Notification of construction work;
- A record of all working drawings, calculations and design where applicable;
- Detailed list of Contractors with contact details, appointments, Mandatories etc., H&S specifications issued;
- Record of Competencies (CVs) and appointments;
- Training Records;
- Permits;
- Method statements;
- Risk assessments;
- Safe work procedures;
- Emergency and injury management;
- Safety data sheets
- Medical surveillance records;
- Registers; and
- Records of audits, minutes etc.
- Plant lists
- Temporary electrical installations
- Employee records (who is on site)

## 7. NON-CONFORMANCES

Should, at any time, the works, or part of the works, be stopped due to unsafe acts or non-compliance with the Clients or PCs H&S Plan; neither the PC nor any other Contractor shall have a claim for extension of time or any other compensation.

The following constitute examples of the types of non-conformances that will attract penalties:

<b>Minor: Penalty: R50/count</b>	<b>Medium: Penalty: R500/count and a non-conformance</b>	<b>Severe Penalty: R5000/count, a non-conformance and/or activity stoppage</b>
Non-use of PPE supplied	Toilets not supplied or regularly serviced; lack of drinking water	Contractors working without Health and Safety Plan approval
Non completion of registers for plant and equipment on site	Contractors not audited	Workers transported in contravention of the OHS plan or legal requirements
Lack of H&S signage at work areas	Working without training or the appropriate, approved H&S method statements	Invalid Letters of Good Standing
Tools and equipment identified in poor condition during inspections	Legal non-conformances identified during the previous audit and not addressed within the agreed time frame	Non compliance with traffic accommodation requirements: layout or physical conditions
	No monthly OHS report at site meeting to report on	Any serious breach of legal requirements
	No certificates of fitness for workers as required	Contractors working without a SACPCMP registered Construction Health & Safety Officer

<b>Minor: Penalty: R50/count</b>	<b>Medium: Penalty: R500/count and a non-conformance</b>	<b>Severe Penalty: R5000/count, a non-conformance and/or activity stoppage</b>
	Working without approved method statements	

### 7.1 Failure to Comply with Provisions

Failure or refusal on the part of the PC or their Contractors to take the necessary steps to ensure the safety of workers and the general public in accordance with these specifications or as required by statutory authorities or ordered by the engineer, shall be sufficient cause for the engineer to apply penalties as follows:

- (i) A penalty as shown in the Table above shall be deducted for each and every occurrence of non-compliance with any of the requirements of the PSHSS.
- (ii) In addition a time-related penalty of R500,00 per hour over and above the fixed penalty may be deducted for non-compliance to rectify any non-conformance within the allowable time after a site instruction to this effect has been given by the PA. The site instruction shall state the agreed time, which shall be the time in hours for reinstatement of the defects. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

## 8. MEASUREMENT AND PAYMENT

The payment items for Occupational Health & Safety are contained in the Bill of Quantities. The same rules are applicable in respect of the pricing of these items as for every other payment item. Attention is drawn to the Pricing Instructions in this document.

### Item and Unit

#### **C.01 Preparation of Contractor's Project Specific Health and Safety Plan. (Lump Sum (L.S))**

The rate for this item must cover all expenses incurred in preparing the Contractor's project specific Health and Safety Plan as required by the Client's project specific Health and Safety Specification in this document

#### **C.02 Provision of Personal Protective Equipment (PPE) as listed in the Bill of Quantities. (Number (No))**

The rates for these items shall include for the procurement, delivery, storage, distribution and all other actions required for the supply of PPE to the employees of the Principle Contractor, full or part time, requiring them. Sub Contractors are responsible for their own costs in this regard. Any items of PPE not included on the list will be paid for only after the Engineer has agreed to their acquisition.

Items listed will include, among others which may be noted, are: hard hats, reflective vests, reflective bibs, high visibility overalls, protective foot wear, fall arrestor harness and tethers, gloves, ear muffs, earplugs and dust masks of appropriate type. Normal items such as standard overalls,



waterproof clothing, gum boots and standard workshop safety equipment such as welding masks and goggles will not be paid for.

Payment will be based on the issues register for PPE as kept by the Construction Health and Safety Officer, backed up by paid invoices if requested.

**C.03 Provision of Part Time Construction Health and Safety Officer (Month)**

The Tender sum shall include for the cost of a Construction Health and Safety Officer on a fulltime if the Client.

**C.04 Costs of Medical Surveillance (Unit (No))**

This item shall covers all costs in involved in the obtaining of baseline medical examinations of temporary labour, including operators for mobile plant as contemplated in CR 21(d) (ii); for temporary workers and workers exposed to noises at or above the limits given in the Noise-induced Hearing Loss regulations, as stipulated.

Workers in the permanent employ of the Contractor will only be paid for if their certificates require updating.

**C.04 a)** Initial (baseline) medical examinations, including audiometric and lung function testing.

**C.05 Provision of First Aid Boxes. (Unit (No))**

The rate for this item shall cover all costs incurred in the provision and maintaining of first aid boxes as outlined in Paragraph 7 above.

**C.06 Submission of the Health and Safety File. (Lump Sum)**

Expenditure under this item shall be made in accordance with the general conditions of contract.

This amount will be paid only once the Principal Contractor has met all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction. This must be done prior to the issue of a Certificate of Completion

**Annexure A**

**CHS Agent audit sheet  
EXAMPLE OCCUPATIONAL HEALTH AND SAFETY AUDIT DOCUMENT**

<b>PROJECT NAME:</b>	
<b>CONTRACT NUMBER:</b>	
<b>HEALTH AND SAFETY AUDIT No:</b>	
<b>CONDUCTED BY :</b>	
<b>DATE :</b>	

# EXECUTIVE SUMMARY

## INTRODUCTION AND OVERVIEW

### Scoring:

The audit has a scoring schedule, which will be used to deem compliance to what is available on site, and what the appropriate systems need to be to match them. The contractor should aim for a score of 3 on each aspect included in the audit. A low score could result in part or all of the work being stopped until compliance is reached.

Scoring schedule	
If the answer is "No" the rating will be 0	
If the answer is 'not applicable' it will be noted as n/a	
If the answer is "Yes" the following ratings are applicable	
1	Requirements partially met and no implementation.
2	Requirements partially met and partially implemented
3	Requirements fully met and partially implemented
4	Requirements fully met and fully implemented
5	Requirements and implementation exceeds expectation

### Key Abbreviations:

Health and Safety	H&S	Occupational Health and Safety Act	OHSA
Occupational Health	OH	Mine Health and Safety Act	MHSA
Construction Regulations	CRs	Driven Machinery Regulations	DMRs
General Safety Regulations	GSRs	Regulations for Hazardous Chemical Substances	RHCSs
Explosive Regulations	ERs	Pressure Equipment Regulations	PERs
Noise Induced Hearing Loss Regulations	NIHLs	Department Mineral and Energy	DMEs
Facilities Regulations	FRs	General Administration Regulations	GARs
South African Bureau of Standards	SABS	South African National Standards	SANS
Joint Building Conditions of Contract	JBCC	South African Road Traffic Safety Manual	SARTSM

Provide a summary of site inspection, significant findings of the site inspection and the audit.

**CORE LEGAL RECORDS ON SITE:**

This list is not conclusive – to be updated monthly relative to works in progress. However the CHS Officer is to be pro-active and pre-empt requirements with the Construction Supervisor (Site Agent). The content will be linked to the physical conditions, processes and activities noted on site, or programme.

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
1.		Updated project <b>H&amp;S Organogram</b>					
2.	OHSA S. 16 (1) and (2)	CEO and subordinate (if required) CVs on file					
3.	CR8.1 CR8.2 CR8.7	Designation of Construction Manager(s) and Subordinate Person(s) CVs on file					
4.	OHSA S. 17; GAR 7	H&S Representatives appointed Monthly inspections completed Representation from Contractors					
5.	OHSA S. 18; GAR 5	H&S Committee appointed Minutes on file H&S representatives reports discussed Incidents discussed Signed by Chair/CEO Evidence of minutes noted					
6.	GAR 4	Copy of OH&S Act (Act 85 of 1993) Available on site					
7.	CR 4.1.j	Written proof of registration / <b>Letters of good standing</b> available on Site					
8.	OHSA S.37.2	<b>Copy of the Mandatory (S37.2) agreement between the PC and Client</b>					

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
9.	OHSA S.37.2	<b>Mandatory agreements</b> between PC and contractors					
10.	CR 4	<b>Notification to Provincial Director – Annexure A</b> Available on site					
11.	CR 7.1.a  7.1.b	Copy of Principal Contractor’s Health & Safety Plan Available on request. Letter of approval from Agent. Health & Safety File opened and kept on site (including all documentation- required in respect of the OHSA & Regulations Available at all times					
12.	CR 7.1.c.i	<b>Copy of Principal Contractor’s Health &amp; Safety Plan provided to Contractors</b> Letters of approval for each contractor on file List of Contractors on site Verified monthly by Agent					
13.	CR9.1.b	<b>Copies of technical method statements</b> approved by Designer Register available, signed by Designer					
14.	CR 9.1(b)  OHSA CR 9.3	<b>Risk Assessments:</b> Up to date and available on site for inspection Review and monitoring programme adhered to Workers trained in risk assessments					
15.	CR 9.1 (c)	<b>Safe work procedures Procedure</b> List of available SWPs Workers trained in SWPs					

HEALTH AND SAFETY PROJECT SPECIFIC SPECIFICATION

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
		Proof of training verified					
16.	OHSA S. 13 CR 7(5)	<b>Induction programme available</b> Proof of <b>induction</b> training available					
17.	CR 11	Structural information from Designer: <ul style="list-style-type: none"> <li>• Geo-science technical report</li> <li>• Design loading of the structure</li> <li>• Methods &amp; sequence of construction</li> <li>• Design risk assessment</li> <li>• Amended H&amp;S Specification</li> </ul>					
18.	CR 13(1)(a)	<b>Excavations:</b> Competent persons appointed CVs available Depth of excavations on site Shoring in use  Registers in line with open excavations noted at site inspection					
19.	GSR 13A	<b>Ladders:</b> Competent person appointed Registers kept Registers for ladders noted on site					
20.	CR 23	<b>Construction Vehicles:</b> Appointment of competent operators <b>Plant Management:</b> Registers on file noting daily inspections Plant and machine lists available Inadequacies noted on site Transportation of workers					

HEALTH AND SAFETY PROJECT SPECIFIC SPECIFICATION

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
		Registers for sample of vehicles noted on site					
21.	CR 27, 28 ER 6 GSR 8	<b>Housekeeping, Stacking &amp; Storage Supervisor:</b> Appointed per work area CVs Available Include site conditions Spoil areas Register available per area					
22.	GSR 2	<b>PPE:</b> included in Risk Assessment PPE used and enforced Records of Issue kept Training to use (Induction) Registers for condition checks					
23.	RHCSs CR 25 GSR 4	<b>Hazardous Chemical Use and Storage</b> Competent Person/s appointed CVs available Risk Assessments include use of HCSs Register of HCS kept/used on Site Flammable Store Bulk diesel storage Material Safety Data Sheets on file and utilised Other					
24.	GSR 3	<b>Emergency management:</b> First aiders available through project Level 3 First aid boxes through site Evacuation procedures Registers available (noted on site)					
25.	GAR	<b>Incident Management:</b>					

HEALTH AND SAFETY PROJECT SPECIFIC SPECIFICATION

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
		Emergency co-ordinator appointed CV available Emergency plan appropriate Emergency level included in Risk Assessments Workers trained Incident reports available and complete					
26.	CRs 7.8 RHCSs  GSR 2(a) MHSA	<b>Medical Surveillance Programme</b> Pre-placement Periodic Exit Workers at height Plant operators Random drug testing <b>DME Annual Medical report</b>					
27.	CR 30 / FRs	<b>Welfare Facilities:</b> Toilets available where crews are working/clean Clean potable water available Adequate eating facilities					
28.		<b>HIV AND AIDS PROGRAMME</b> HIV and AIDS Policy and plan available Condoms available Peer review programme available Ongoing training of workers					
29		<b>Other</b>					



<b>RESPONSIBILITY</b>	<b>SIGNATURE</b>	<b>DATE</b>
<b>CHS AGENT SIGNATURE:</b>		
<b>PC SIGNATURE:</b>		
<b>DESIGNER SIGNATURE:</b>		
<b>CLIENT SIGNATURE:</b>		

## ANNEXURE B CLOSE OUT REQUIREMENTS

The H&S files for the Principal Contractors and all Contractors require closure and handover to the Client at the completion of the project. The following list is an example of what should be included, but is not exhaustive. The OHS Agent or the Client may require further information at the time of completion and the Principal Contractor is to ensure that all instructions are met. Documentation would include all records from the start of the project. Daily or monthly plant inspection records are not required unless they are related to an accident. All records to be in electronic format and submitted to the OHS agent for approval in adequately formatted lists and folders. Layout should be logical and in the same order as in the site files.

### Health and Safety close out file requirements include:

- a) Client H&S Specification
- b) Principal Contractor's OHS Plan(s)
- c) Organograms
- d) Legal Appointments
- e) List of all employees employed on a permanent or contractual basis over the duration of the contract
- f) Notification to Department of Labour of commencement of work
- g) Letters of Good Standing for the Project
- h) Full files for all Contractors as well as their close out reports
  - List of Contractors
  - All employees employed on a permanent or contractual basis over the duration of the contract
  - Letters of Approval of Contractors
  - Mandatory Agreements
  - Letters of Good Standing
  - Appointments
- i) Incident Records
- j) Non- Conformance records
- k) Agent's Audits
- l) Method Statements
- m) Risk assessments
- n) Safe work procedures
- o) Medical surveillance certificates of fitness. Medical records are to be kept according to the OH&S Act as amended
- p) All drawings for temporary structures (suspended beams/scaffolds etc.)
- q) All operating manuals for any systems that require on-going maintenance
- r) Copies of test results, policies and procedures for environmental monitoring (silica, noise, dusts etc.)

### Defect and Liability Period

The H&S files are to be kept 'live' for the defect and liability period by the Principal Contractor, including those of their Contractors. Any work required during the defect and liability period will require an assessment of the H&S file by the OCHS Agent prior to any work commencing.

A copy drawing records for the as-builts are to be placed on file by the Designers once complete.

**ANNEXURE C  
NON CONFORMANCES**

HEALTH AND SAFETY SITE INSPECTION NON CONFORMANCE NO		
<b>AGENT:</b>		<b>PROJECT:</b>
<b>Consultant:</b>		<b>Date and time:</b>
<b>Client</b>		<b>Area:</b>
<b>Contractor:</b>		
<b>ASPECTS NOTED:</b>	<b>COMMENTS:</b>	<b>COMPLETION REQUIRED BY (DATE):</b>
	•	
	•	
	•	
	•	
	•	
<b>PHOTOGRAPHIC EVIDENCE (if available):</b>		
<b>OTHER:</b>		
The following penalties are to be applied:		
<b>Signature of Designer</b>		
<b>Signature of CHS Officer/Site Agent</b>		
<b>Signature: of CHS Agent</b>		

**ANNEXURE D:**

**CONTRACTORS MONTHLY HEALTH AND SAFETY REPORT**

(To be submitted by the end of the first week of each month and be available with each audit)

<b>CONTRACT NUMBER:</b>		<b>PROJECT NAME</b>	<b>CONTRACT DETAILS:</b>
<b>1</b>	<b>GENERAL ACTIVITIES FOR THE MONTH</b>		
	(detail each area of work)		
<b>2</b>	<b>NUMBER OF WORKERS (permanent and local, contractors)</b>		
<b>3</b>	<b>TRAINING DONE</b>		
	(supplier, no of people, type)		
<b>4</b>	<b>INCIDENTS / ACCIDENT</b>		
	(list number and details, attach reports)		
<b>6</b>	<b>NON-CONFORMANCES</b>		
	(closed out or active)		
<b>7</b>	<b>CONTRACTORS (list, approval status)</b>		
<b>8</b>	<b>AUDITS COMPLETED (internal and external)</b>		
<b>9</b>	<b>CRITICAL ISSUES</b>		

<b>10</b>	<b>GENERAL</b>	

**BILL OF QUANTITIES FOR OCCUPATIONAL HEALTH AND SAFETY (To be included in BoQ Preliminaries C7)**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL
C.01	Preparation of the Contractor's site specific Health and Safety Plan	lump sum			
C.02	Provision of Personal Protective Equipment (PPE)				
	(a) Reflective vests	No			
	(c) Protective foot wear	No			
	(d) Earplugs	No			
	(e) Dust masks	No			
	(f) Gloves				
	g) High visibilty overalls to SARTSM Chapter 13 Level 3	No			
C.03	Provision of a full-time time Construction Health and Safety Officer (SACPCMP Registered)	month			
C.04	Cost of medical certificates and medical surveillance				
	(a) Initial (baseline) medical examinations	prime cost (PC) sum			
	(b) Periodic and exit examinations	prime cost (PC) sum			
C.05	Provision of First Aid Boxes to GSR requirements	No			
C.06	Submission of a Health and Safety File	lump sum			

## INDEPENDENT DEVELOPMENT TRUST

### **C4.4 Covid 19 Specification**

Tenderers are advised to peruse, price, and carry forward totals to Preliminaries and General Section of the BOQ

See attached Addendum



**COVID -19 HEALTH AND SAFETY SPECIFICATION**

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**PROJECT NAME: Construction of Riverview Primary School**

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**ADDENDUM INDEX**

<b>Part 1</b>	<b>PREAMABLE</b>
1.1	Introduction to & Key References
1.2	Purpose of the COVID-19 Occupational Health & Safety Specification
1.3	Rights, Roles & Responsibilities including Occupational Health & Safety
<b>Part 2</b>	<b>HEALTH &amp; SAFETY PLAN &amp; IMPLEMENTATION REQUIREMENTS</b>
2.1	Brief
2.2	COVID-19 Legislature Health & Safety Policies
2.3	Reporting to Work / Engagement in the Covid-19 Pandemic
2.4	Role Players to COVID-19 Policy & Plan of Contractor
2.5	Risk Assessment & Risk Assessment Reviews
2.6	Health Management & Medicals
2.7	Personal Protective Equipment (PPE)
2.8	First Aid / Healthcare / Emergency Contingency Planning
2.9	Training & Awareness
2.10	Reporting, Recording and Document System of COVID-19 Plan
2.11	Sub-Contractor / Supplier Management
2.12	Reporting & Recording of Occupational Diseases (A/I Reporting & Compensation Fund Claims)
2.13	Provisional Costings & Budgets
2.14	Safe Site Shutdown / Lockdown & Support Systems
<b>Part 3</b>	<b>OCCUPATIONAL HEALTH &amp; SAFETY PLAN ADDENDUM SUBMISSION &amp; PENALTIES</b>
3.1	Requirements of Plan Submission
3.2	Penalties to Non-Compliance
Annexure A	National Disaster Management Act 57 of 2002: COVID-19 Regulation





## COVID -19 HEALTH AND SAFETY SPECIFICATION

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### **Part 1:**

#### **1.1 INTRODUCTION TO ADDENDUM**

##### **CORONA VIRUS OUTBREAK**

On March 11, 2020, the World Health Organization (WHO) declared that an outbreak of the viral disease COVID19 – first identified in December 2019 in Wuhan, China – had reached the level of a global pandemic. Citing concerns with “the alarming levels of spread and severity,” the WHO called for governments to take urgent and aggressive action to stop the spread of the virus.

The regulations seek to ensure that we, as a country, implement appropriate measures to contain the outbreak of COVID-19. These measures have far-reaching implications for employers.

On March 15, 2020, the Minister of Co-Operative Governance and Traditional Affairs, designated under Section 3 of the Disaster Management Act, 2002 (act No.57 of 2002), published in Government Gazette No. 43096 the Regulations, setting out the necessary steps to prevent an escalation of the disaster or to alleviate, contain and minimise the effects of the disaster.

Furthermore, the Department of Employment and Labour has appealed to employers to use the prescriptions of the Occupational Health and Safety (OHS) Act of 1993 in governing workplaces in relation to Coronavirus Disease 2019 COVID–19.

The Department wishes to appeal to employers who have not prepared for pandemic events to prepare themselves and their workers as far in advance as possible of potentially worsening outbreak conditions. The Department advises employers to “go back to basics” by conducting hazard identification and risk assessment to determine the level of risk exposure and communicate to all workers.

As of 09 March 2020, the Department of Employment and Labour identified that Corona Virus infections had spread to eight new countries – increasing to 102 countries affected worldwide.

International human rights law guarantees everyone the right to the highest attainable standard of health and obligates governments to take steps to prevent threats to public health



**COVID -19 HEALTH AND SAFETY SPECIFICATION**

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and to provide medical care to those who need it. Human rights law also recognizes the context of serious public health threats and public emergencies

**KEY REFERENCES**

- Occupational Health and Safety Act No. 85 of 2003 and Regulations (as amended)
- Compensation for Injury and Occupational Diseases Act No. 100 of 1993 (as amended)
- National Disaster Management Act No 57 of 2002 and COVID-19 Regulations
- Department of Employment and Labour: Covid-19 Guideline
- World Health Organisation (WHO)
- National Institute for Communicable Diseases (NICD) (South Africa)
- Centre for Disease Control and Prevention (CDC)

**1.2 PURPOSE OF THE COVID-19 OCCUPATIONAL HEALTH & SAFETY SPECIFICATION**

At this time, it is necessary for Contractors to implement a policy and protocol to manage COVID-19 in the workplace and on site.

Employers need to remain agile and flexible as this issue continues to develop. Contractors who are proactive and forward-thinking in terms of their plans for business continuity will ensure that they contain, as far as possible, any negative impact on their businesses, and spread of the virus to their employees.

The COVID-19 is an addendum to the Health & Safety Specification issued as a guideline to the Contractor, to understand the virus, to implement his policies, plans and procedures, as precautionary and vital measures on his project, and in his workplace, to ensure that the Corona Virus is not contaminated and / or spread amongst his, not limited to, workplace and employees

**For this purpose, this Covid-19 Health & Safety Specification, but not limited to, requires the contractor to use it to plan, identify, compile and implement a Covid-19 plan.**

No advice, approval of any document required by the PSHSS, such as hazard identification and risk assessments, or any other form of communication from the Client shall be construed as acceptance by the Client of any obligation that absolves the Principal Contractor from achieving the required level of performance and compliance with legal requirements. Furthermore, there is no acceptance of liability by the Client, which may result from the Principal Contractor failing to



## COVID -19 HEALTH AND SAFETY SPECIFICATION

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comply with this Covid-19 PSHSS, i.e. the Principal Contractor remains responsible for achieving the required performance and Health levels

The PSHSS *highlights the aspects* to be considered, over and above the minimum requirements of current guidelines and regulations set-out by legislature, governance and organisations as listed in key references above.

Requirements may be changed should new risks or issues are identified, or proposed.

The implementation of the proposed contingency plan shall remain at review continuously, since it is an outbreak of a virus still under scientific scrutiny, and each case (of infection, symptoms or outbreak) is dealt with individually and or independently.

Any new legislation or standards that are promulgated or accepted during the contract is automatically applied to your contract and or project.

### **1.3 RIGHTS, ROLES & RESPONSIBILITIES INCLUDING OCCUPATIONAL HEALTH & SAFETY**

The Contractor is expected to incorporate a **Care/Support Team for Covid-19** to maintain his Covid-19 plan implementation.

Whilst the 16.1 remains responsible at all times, the President of South Africa, has mandated every citizen to maintain diligence and cautious precautionary measures to “flatten the curve” of the outbreak.

On these projects, it is expected that the 16.1, 16.2, safety officer, first aider, construction work supervisor, emergency co-ordinator, SHE representatives and construction managers etc. would make up this team and they should be included in the compilation of the Covid-19 plan, and the **Health & Safety Organogram** extended to include the Covid-19 Reaction/Support Team

Every worker / Team member is identified at the front line of any outbreak response and as such are exposed to hazards that put them at risk of infection with an outbreak pathogen (in this case COVID-19).

Hazards include pathogen exposure, long working hours, psychological distress, fatigue, occupational burnout, stigma, and physical and psychological violence.



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**COVID -19 HEALTH AND SAFETY SPECIFICATION**

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This document highlights the rights and responsibilities of all workers, including specific measures needed to protect occupational safety and health.

The mandate of these role-players is crucial, and the initial Health & Safety Specification, Contractors Plan should be taken into consideration when putting this team together, and identifying role-playing, planning and procedures etc.

The information relative to the scope of the project, the works etc. are to be considered when further instituting roles & responsibilities.

There shall be no contradictory appointments to the appointments already in place, and no infringement of anyone’s willingness or right to not participate, unless otherwise it is a “normal” requirement of the Employer to place such employee under such title/s.

No work may commence without written approval of the H&S COVID-19 plan by the client and/or SHE Agent.

**Part 2:**

**HEALTH & SAFETY PLAN & IMPLEMENTATION REQUIREMENTS**

**2.1 BRIEF**

The following requirements, but not limited to, are required to be considered, inclusive, part-planning and identification in the Contractors Covid-19 Health & Safety plan.

**The Contractor is expected to add an addendum to his Health & Safety Plan, considering and outlying the following factors, and submit for approval.**

Whilst this is a “new” virus and outbreak, it is expected that research is done (where necessary) and normal health management protocols are applied.

**The Guideline from the Department of Employment & Labour refers:**

*“For employers who have already planned for influenza outbreaks involving many staff members, planning for COVID-19 may involve updating plans to address the specific exposure risks, sources of exposure, routes of transmission, and other unique characteristics of respiratory infections (i.e., compared to influenza virus outbreaks).”*



## COVID -19 HEALTH AND SAFETY SPECIFICATION

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### 2.2 COVID-19 POLICY

A Covid-19 Company / Site Policy is required **including the objectives** per the Health & Safety Act.

**Refer:** Section 7 of the Health & Safety Act

### 2.3 REPORTING TO WORK / ENGAGEMENT IN THE COVID-19 PANDEMIC

The outbreak focuses on a need for Employers / Contractors to implement certain controls for/when employees report to work and engage with works, or each other.

Particular measures should be put into place and or considered where possible:

**These measures should include / consider:**

- Engineering Controls / Alternatives
- Administrative Controls / Alternatives
- Safe Work Procedures
- Quantity of Employee Controls per activity or engagement
- Personal Protective Equipment (PPE )
- Risk Level identification

**Some of the controls would include alternatives or consider:**

- Screening employees for risk or symptoms
- Educating employees & offering Awareness or informative training (on the corona virus)
- Isolating employees
- Isolating employees from hazardous risk areas
- Ensuring good and proper hygiene controls
- Ensuring good and proper ventilation and access to sufficient ventilation equipment
- Allowing administration to be done off-site (where technical and practically just)
- Planning and scheduling activities in such a way to minimise teams amalgamating ( bricklaying vs general labour) in particular area etc i.e. minimising the number of workers on site at any given time e.g. rotation or shift work

### 2.4 ROLE PLAYERS TO COVID-19 POLICY & PLAN OF CONTRACTOR

**With reference to item 1.3:**



## COVID -19 HEALTH AND SAFETY SPECIFICATION

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The Contractor should establish a care/support team which can handle the process of cross contamination and infection on-site. The team should also be available / referred for answering workers' concerns and communicating accurate media updates etc

With employees, site visitors and others coming to site from unknown origins, it is imperative that the Covid-19 plan is drafted with the identification of the care/support individuals to form this team, as these individuals will be required to avail themselves, as per the procedure put into place.

The role-players would (expected) to attend to all who report to site on arrival, make decisions to allow such individuals to proceed onto site, make decisions on those who are deemed a potential risk, identify and make decisions on those who are high risk, call upon, intervene and drive the procedure to those who are at risk or potentially-infected towards healthcare, testing and prognosis.

The role-players will also be expected to deal with issues of resources, and maintaining of resources, e.g. using a glove, then re-using a glove is not permitted. Using a glove then taking off a hand where the hand is bare and infecting then the hand is also not correct.

All these controls need monitoring by role-players.

**The organogram must be re-defined and submitted, and include appointment letters for such.**

### **2.5 RISK ASSESSMENT & RISK ASSESSMENT REVIEWS**

In all Health & Safety Protocols – Risk Analysis is key.

Compiling the Covid-19 plan requires that Employers and workers should use this planning guidance to help identify risk levels in workplace settings and to determine any appropriate control measures to implement.

Planning for COVID-19 involves updating plans to address the specific exposure risks, sources of exposure, routes of transmission, and other unique characteristics of respiratory infections (i.e., compared to influenza virus outbreaks)

**Covid-19 measures require that a revised risk assessment is compiled and inclusive of:**



**COVID -19 HEALTH AND SAFETY SPECIFICATION**

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- Hazard
- Risk
- Risk to Health
- Risk to Safety
- Precautionary / Prevention Measures
- PPE listed inclusive referred in Precautionary Measures
- Risk Rating / Residual Risk

**The contractor is to identify and pre-determine the risks or potential risk exposure to THIS project and thereafter deep the hazards and risks. In other words the risk assessment should be more site-specific than global-specific**

*The Department of Employment and Labour Guidelines also refers:*

*“The Department advises employers to “go back to basics” by conducting hazard identification and risk assessment to determine the level of risk exposure and communicate to all workers”.*

*Remember: In determining your Hazards, Risks & Control Measures – you need to achieve:*

**Reduce and omit infection of the Corona Virus by:**

- Not spreading the Virus
- Not cross-contaminating
- Proper, Real and **Stringent** Hygiene Practices
- Proper, sufficient and correct supply, use and disposal of PPE
- Good Health Practices at home
- Sufficient, Clean and Adequate water and sanitary

Hazards include pathogen exposure, long working hours, psychological distress, fatigue, occupational burnout, stigma, and physical and psychological violence

**2.6 HEALTH MANAGEMENT & MEDICALS**

**Health Management** is crucial for the Covid-19 Disease Maintenance and Management.

Contractors must assume overall responsibility to ensure that all necessary preventive and protective measures are taken to minimize Occupational Health and Safety risks.

Contractors are to include in their Systems, at least the following, in their **Health Management Protocol** in their Covid-19 Health & Safety Plan addendum:





## COVID -19 HEALTH AND SAFETY SPECIFICATION

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PROJECT NAME: Construction of Riverview Primary School

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- Screening Process
- Isolation and Management Process (in the event of suspected or infected cases)
- Provide information, instruction and training on Occupational Hygiene & Management;
- Refresher Training on infection and contamination prevention and control (IPC); and Use, Putting on,
- Taking off and disposal of correct and identified personal protective equipment (PPE); provide adequate IPC and PPE supplies (masks, gloves, goggles, gowns, hand sanitizer, soap and water, cleaning supplies) in sufficient quantity to healthcare or other staff caring for suspected or confirmed
- Communicate health risks
- Identify a procedure for maintaining health and hygiene practices
- Monitoring & Reviewing of Health Status' of all employees daily

Health Management includes the workplace and not only the workforce. There are certain areas that shall need disinfectant or to be hygienically maintained, eg high-trafficked areas, areas where food and gatherings take place (lunch facilities) etc.

International human rights law guarantees everyone the right to the highest attainable standard of health and obligates governments to take steps to prevent threats to public health and to provide medical care to those who need it.

### MEDICAL SURVEILLANCE PROGRAMME

Whilst the Construction Regulations 7(g) refers to The Contractor ensuring that all employees are fit to the specific work they perform, the Covid-19 outbreak, is identified as a threat to all on-site, and would deem any person who is infected or potentially infected, with the Corona Virus incompetent.

Therefore, after a global outbreak, and a National Lockdown, it is required that ALL EMPLOYEES including management would have to have a Medical Certificate of Fitness to resume or commence works on site.

The **Medical Surveillance programme for Covid-19** is hereby set as follows: **For this Project**

2,6,1 If there is an Occupational Medical Examination (Annexure 3) for the employee dated within 2020, and the employee **had NO-FLU LIKE symptoms, DID NOT visit the**





**COVID -19 HEALTH AND SAFETY SPECIFICATION**

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**PROJECT NAME: Construction of Riverview Primary School**

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**clinic, doctor or hospital at all since Lockdown, and still does not have any symptoms (upon screening)**, then a General Practitioner (GP) Certificate of Fitness will be accepted.

2.6.2 If there is NO Occupational Medical Examination (Annexure 3) for the employee for THIS PROJECT, then an Annexure 3 Occupational Medical Practitioner (OMP), Annexure 3 Certificate of Fitness is required.

2.6.3 If there is an Occupational Medical Examination (Annexure 3) for the employee dated within 2020, and the employee **had flu like symptoms, visited the clinic, doctor or hospital just before, during and currently after lockdown**, then an Annexure 3 is renewed Annexure 3 is required from the OMP\*.

\*It may be that the OMP also requires a letter from the GP – It is not guaranteed.

**2.7 PERSONAL PROTECTIVE EQUIPMENT [PPE]**

As a normal part of Health and Safety Systems, it is a known factor that PPE is key to the prevention of most Injuries, Accidents, Diseases, Contaminations and Incidents. The Covid-19 outbreak proves this again.

Personal Protective Equipment (PPE) – while engineering and administrative controls are considered more effective in minimizing exposure to SARS-CoV-2, PPE is also be needed to prevent exposures, contamination and cross-contamination.

**The PPE identification and Resource requirements** should be identified and proven in the Hazard Identification and Risk Assessment (HIRA) per clause 2.5.

Although the HIRA may not conclude all the PPE, the Contractor is also to determine the same from all the requirements herein listed in the Covid-19 Health & Safety Specification

Examples of PPE include: gloves, goggles, face shields, face masks, gowns, aprons, coats, overalls, hair and shoe covers and respiratory protection, Hand Soap, Hand Sanitizer, No-touch Disposal / Waste Bins for Contaminated Waste only etc. Employers should check the NICD website regularly for updates about recommended PPE, and should also include **Health & Safety Signage and display notices**, where required

A register including the PPE for Covid-19 (not on the usual PPE Register) should be submitted with the Covid-19 Health & Safety Plan addendum.



## COVID -19 HEALTH AND SAFETY SPECIFICATION

PAGE 11 OF 15

PROJECT NAME: Construction of Riverview Primary School

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### 2.8 FIRST AID / HEALTHCARE / EMERGENCY CONTINGENCY PLANNING

A First Aider is deemed competent in identifying symptoms or reactions that the Corona Virus would portray, whilst each individual case, is different.

The First Aider is therefore expected to be included in the Support/Reaction Team as noted in 1.3 and 2.4.

The First Aider / Support Team should therefore be diligent and even-more cautious to prevent and ensure no cross contamination, and no infection on-site even when applying First aid for another cause.

Whether acting as a First Aider, or a member of the Support Team, all Emergency Contingency planning should consider at least:

- Follow established Occupational Health and Safety procedures, avoid exposing others to health and safety risks and ensure participation in Employer-provided Occupational Health & Safety training;
- Stringent Hygiene Practice
- Use provided protocols to assess and treat patients;
- Treat patients with respect, compassion and dignity;
- Maintain patient confidentiality;
- Swiftly follow established public health reporting procedures of suspect and confirmed cases;
- Identify Call Centre and External Emergency Services for Covid-19
- Provide or reinforce accurate infection prevention and control and public health information, including to concerned people who have neither symptoms nor risk (i.e. other employees)
- Use and Disposal of personal protective equipment properly;
- Self-monitor for signs of illness and self-isolate or report illness to managers, if it occurs;
- advise management if they are experiencing signs of undue stress or mental health challenges that require support interventions; and
- Report to Construction Manager or appointed person any situation which they have reasonable justification to believe presents an imminent and serious danger to life or health.

**The Following, but not limited to, will be required, and expected to be Displayed, and with Key Personnel:**

- An isolation area / space / facility on-site including the Disinfecting Management of this Facility ON-SITE;



## COVID -19 HEALTH AND SAFETY SPECIFICATION

PAGE 12 OF 15

**PROJECT NAME: Construction of Riverview Primary School**

*Effective from:* **October 2020**

- External Emergency Contacts List of Facilities identified for Covid-19 Management;
- Call Centre Contacts Lists Information for the Covid-19 Hotline, Local GP, WHO, NICD, Local Dept Labour, CDC etc.
- Emergency Plan to deal with Covid-19 screening, infection, contamination including the process of all employees when one is found to be infected (its deemed an emergency).
- Inclusion of PPE Resource Plan in the Covid-19 Emergency Plan

### **2.9 TRAINING & AWARENESS**

Training and Awareness of the Covid-19 Addendum to your approved Health & Safety Plan is crucial, and part of the Implementation of the Contractors System.

Employees need to be informed and education with accurate information. Knowledge is Power.

The Contractor is to outline Safe Work Procedures pertaining to the compiled system to manage and alleviate the Covid-19 disease.

- What is Covid-19 and Disease Information
- Role Players
- Hazards and Risks to Covid-19
- Hygiene Management & Practice
- Infection Prevention and Control (IPC) measures
- Safe Working Systems (working apart etc)
- Emergency Protocols
- PPE Use and Disposal
- Employee Benefits or Non-Benefits (Remuneration, UIF Claims, Compensation Claims etc) Zero-Tolerance Policies towards workplace violence and harassment, etc

The Contractors manual or safe work procedure sheets inclusive, but not limited to, the above should be attached to the Covid-19 plan.

### **2.10 REPORTING, RECORDING AND DOCUMENT SYSTEM OF COVID-19 PLAN**

The Contractor is required to record all systems implemented, controlled and handled.

The Contractor shall record all screening processes, hygiene maintenance, medical reports, suspected and infected cases etc.



## COVID -19 HEALTH AND SAFETY SPECIFICATION

PAGE 13 OF 15

**PROJECT NAME: Construction of Riverview Primary School**

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The Contractor shall amend, where applicable, and add, where applicable, suitably designed registers for the additional systems, protocols and resources needed to be recorded.

The contractor shall include Covid-19 matters in his monthly report including statistics.

### **2.11 SUB-CONTRACTOR / SUPPLIER MANAGEMENT**

The Contractor is to review his Sub-Contractor Management plan, and sub-contractor plans.

The Contractor shall ensure that his Sub-contractors and suppliers have sufficient systems on their own part to address items within this Health & Safety Covid-19 Specification, and to ensure that they do not contaminate or infect employees or facilities at this project

The Health & Safety Officer, who is deemed to be part of the Support Team, should ensure that all necessary protocols are followed, and that the Principal Contractor and Sub Contractor's and or Suppliers do not contradict his own protocols and plans to control, manage and handle Covid-19

The Contractor is to produce evidence of the same.

### **2.12 OCCUPATIONAL DISEASES (REPORTING & RECORDING)**

Whilst Covid-19 is not an Occupational Disease, it can be contracted at the workplace.

The President has identified that the Compensation Fund will make available funding to accommodate claims of Covid-19 infection.

The Contractor must identify his Procedure to identify Contamination / Contamination on-site (on duty), and his claims procedure.

The Contractor shall include the Contact Details of the Eastern Cape Rapid Response person at Department of Labour, which is:

Department of Labour  
**Eastern Cape Rapid Response**  
Philiswa Madikiza 043 – 701 3342

Or a claim under Illness Benefits online at [www.ufiling.co.za](http://www.ufiling.co.za)



**COVID -19 HEALTH AND SAFETY SPECIFICATION**

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**PROJECT NAME: Construction of Riverview Primary School**

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**2.13 PROVISIONAL COSTINGS & BUDGETS: COVID-19 OUTBREAK**

The Contractor is expected to compile his Provisional Costings and Budgets expected to derive from this Health & Safety Specification and his plan, with the Health & Safety Covid-19 plan.

A BoQ Template can be requested from Bauturn Consulting for Covid-19 Implementation Measures should the Contractor require the same. All items provisionally expected to be required should be in this.

This provisional budget and / or costing requirement relates to **Construction Regulation 5(1)(g)**, and is not a guarantee to Contingency Claims, a Variation Order that may be deemed due to Covid-19, or Time Extension Claims. Such Claims or variations must be dealt with the Principal Agent accordingly.

**2.14 SAFE SITE SHUTDOWN / SUPPORT SYSTEMS**

Once Lockdown is suspended, and perhaps an outbreak on site, or another Lockdown is required, or at any given interval whereby Covid-19 has demanded a close or interval, the Contractor shall ensure proper Safe Site Shutdown procedure and practice.

The Contractor is to ensure that proper systems of shutdown, lock-out and security of all is carried out, and that proper support systems are communicated and offered, where applicable and possible, to all employees, teams and surrounding communities or facilities

Support Call Centre, Support Counselling centres and so forth are to be sourced, and the information of such to be communicated. The contractor shall provide his procedure for such in his addendum of the Health & Safety plan.

No PPE disposed must be left on-site should Shutdown take place. All hazardous waste must be removed and disposed as per the procedure identified; this should also be in the Risk Assessment.



**COVID -19 HEALTH AND SAFETY SPECIFICATION**

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**PROJECT NAME: Construction of Riverview Primary School**

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**Part 3**

**OCCUPATIONAL HEALTH & SAFETY PLAN SUBMISSION AND PENALTIES**

**3.1 REQUIREMENTS of PLAN SUBMISSION**

The Contractor shall identify and include, but not limited to, items herein stipulated and submit to the Client and or the Health & Safety Agent, with his Health & Safety Addendum to his safety plan, for approval.

Upon cease of the National Lockdown, the Contractor may not return to site, until the Covid-19 Health & Safety Plan addendum, with items, is approved by the SHE Agent and or the Client.

**3.2 PENALTIES TO NON-COMPLIANCE**

Reference to penalties referred in the National Disaster Management Act, its regulations, and the Occupational Health & Safety Act, and its regulations (including Construction Regulations) shall apply, and it is a criminal offence to cede to Non-compliance herein.

In Addition to legislative penalties, the client may impose further penalties, including time penalties, for the noncompliance, delay to compliance and negligence of any Contractor and or his suppliers deemed to be in Non-Compliance, accordingly.

## INDEPENDENT DEVELOPMENT TRUST

### **C4.5 Treasury Guidelines for Covid 19**

Tenderers are advised to peruse, price, and carry forward totals to Preliminaries and General Section of the BOQ

See attached Addendum

## **INDEPENDENT DEVELOPMENT TRUST**

### **C4.6 Geotechnical investigation**

#### **Results of soil investigations**

Geotechnical Report: Information can be obtained from the Civil Engineers



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# ADDENDUM A

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## Occupational Health and Safety Regulations

GOVERNMENT NOTICE  
DEPARTMENT OF LABOUR

No. R. ....

7 February 2014

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**

### ***CONSTRUCTION REGULATIONS, 2014***

The Minister of Labour has under section 43 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), after consultation with the Advisory Council for Occupational Health and Safety, made the regulations in the Schedule.

ADDENDUM A

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993  
Regulation 3 of the Construction Regulations, 2014

NOTIFICATION OF CONSTRUCTION WORK

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1.(a) Name and postal address of principal contractor:

\_\_\_\_\_

(b) Name and tel. no of principal contractor's contact person:

\_\_\_\_\_

2. Principal contractor's compensation registration number: \_\_\_\_\_

3.(a) Name and postal address of client:

\_\_\_\_\_

(b) Name and tel no of client's contact person or agent:

\_\_\_\_\_

4.(a) Name and postal address of designer(s) for the project:

\_\_\_\_\_

(b) Name and tel. no of designer(s) contact person:

\_\_\_\_\_

5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6.(1). \_\_\_\_\_

6. Name/s of principal contractor's sub-ordinate supervisors on site appointed in terms of regulation 6.(2).

\_\_\_\_\_

7. Exact physical address of the construction site or site office:

\_\_\_\_\_

8. Nature of the construction work:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9. Expected commencement date: \_\_\_\_\_

10. Expected completion date: \_\_\_\_\_

11. Estimated maximum number of persons on the construction site.

\_\_\_\_\_

12. Planned number of contractors on the construction site accountable to principal contractor:

\_\_\_\_\_

13. Name(s) of contractors already chosen.

\_\_\_\_\_

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---

\_\_\_\_\_  
Principal Contractor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Client

\_\_\_\_\_  
Date

- THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.
- **ALL PRINCIPAL CONTRACTORS** THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

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# ADDENDUM B

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## Occupational Health and Safety Specification

Construction of new Administration block (Block A), Dining & Nutrition (Block B), 2 Classroom & Multipurpose Classroom (Block C), 2 Classroom block, Science lab & HOD (Block F), 3 Classroom block with HOD (Block G), 2 Classroom block (Block H), 2 Classroom block with HOD (Block I), 2 Classroom block (Block J), Computer lab ,library & Classroom (Block K), 2 Classroom block & HOD (Block L), 2 Classroom block & HOD (Block M), 3 Classroom block & HOD (Block N), 3 Classroom block & HOD (Block O), VIP Staff Toilet Block (Block P), VIP Girls Toilet Block (Block Q), VIP Boys Toilet Block (Block R), Guard House (Block S), Refuse Yard, Demolitions, Renovation to existing buildings, Existing 5 classroom plastered & Painted (Block D), Existing 5 Classroom Face brick (Block E), External work, Earthworks, Stormwater, Sewer Reticulation, Water Reticulation, Roadway, Parking and Walkway, Sports Field, Assembly Slab and Playing Court, Flag Pole, Fencing, Retaining Wall, Entrance wall, External Walkways, Bulk Infrastructure, Electrical installation, Water Harvesting, Water storage tanks, lowest part of site, Installation of water pumps, High level water tanks to high part of site, Municipal connection..

## INDEPENDENT DEVELOPMENT TRUST

(Hereinafter referred to as the Employer)

## OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION

This specification shall be used in conjunction with all other applicable safety specifications, legislation, and regulations in force at the time of the contract. Where unique site specifications are in force, those site specifications shall take precedence over this Specification.

Palm Square Business Park  
Silverwood House  
Bonza Bay Road  
Beacon Bay  
Contact: 047 7116000  
Contact person: Nyameko Goqi  
Email: nyamekog@idt.org.za

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# **ADDENDUM B**

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## **Project Specific Health and Safety Specification**

Tenderers are advised to peruse, price, and carry forward totals to Preliminaries and General Section of the BOQ

See attached Addendum

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# ADDENDUM “A”

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## PRO-FORMA AGREEMENT IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY ACT 1993

### PRO-FORMA AGREEMENT IN TERMS OF

#### OCCUPATIONAL HEALTH AND SAFETY ACT 1993 – SECTION 37 (2)

#### NEW CONSTRUCTION SAFETY REGULATIONS

The above-mentioned regulations were promulgated in the Govt. Gazette on Friday, 18 July 2014 under the Occupational Health & Safety Act (85 of 1993) and are now in force.

The Employer and the Contractor hereby agree, in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act 1993 (Act 85 of 1993, hereinafter referred to as the Act), that the following arrangements and procedures shall apply between them to ensure compliance by the Contractor with the provisions of the Act, namely:

- (a) The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all the relevant provisions of the Act and the regulations promulgated in terms of the Act, and the Employer’s Health and Safety Specifications included in the contract documents.
- (b) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and Regulations and the Employer’s Health and Safety Specifications included in the contract documents will be complied with in all respects.
- (c) In relation to any work or activity performed by the Contractor, his workmen or any other person for whose acts or omissions the Contractor is responsible in terms of the Contract, the Contractor hereby accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and Regulations and expressly absolves the Employer from itself being obliged to comply with any of the aforesaid duties, obligations and prohibitions.
- (d) The Contractor agrees that any duly authorised officials of the Employer shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the Contractor has complied with his undertakings as set out more fully in paragraphs (a) and (b) above, which steps may include, but will not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or to inspect any appropriate records held by the Contractor.
- (e) The Contractor shall be obliged to report forthwith in writing to the Representative/Agent full details of any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this Contract.
- (f) Forward “safety meeting” minutes to the representative/Agent.

For the Employer: \_\_\_\_\_ Date: \_\_\_\_\_

Witnesses: 1) : \_\_\_\_\_ 2) \_\_\_\_\_

For the Contractor: \_\_\_\_\_ Date: \_\_\_\_\_

Witnesses: 1) : \_\_\_\_\_ 2) \_\_\_\_\_

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# ADDENDUM B

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## NOTIFICATION OF CONSTRUCTION WORK

### NOTIFICATION OF CONSTRUCTION WORK (Regulation 3 of the Construction Regulations, 2014)

#### 1. CONTRACTOR

1.1 Name and postal address of Contractor:

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1.2 Name and telephone number of Contractor's contact person:

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1.3 Contractor's compensation registration number:

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1.4 Name and telephone number of Contractor's Construction Supervisor :

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1.5 Physical address of the construction site or site office:

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1.5 Estimated number of persons on the construction site:

---

1.6 Estimated number of Subcontractors on the construction site accountable to the Contractor:

---

#### 2. EMPLOYER

2.1 Name and postal address of Employer :

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2.2 Name and telephone number of Employer's Principal Agent:

---

### 3. DESIGN CONSULTANTS

3.1 Name and postal address of design consultants:

3.1.1 Construction project managers/ Principal Agents:

Ngonyama Okpanum & Associates  
Postal address:  
PO Box 8194  
NAHOON  
EAST LONDON, 5210  
Tel: 043 735 2027

3.1.2 Architects:

Ngonyama Okpanum & Associates  
Postal address:  
PO Box 8194  
NAHOON  
EAST LONDON, 5210  
Tel: 043 735 2027

3.1.3 Structural engineer:

CSE Consulting Engineers  
Postal address:  
PO Box 15825  
EAST LONDON, 5205  
Tel: 043 726 3565

3.1.4 Electrical engineer:

RNA Consulting Engineers  
Postal address:  
7 King Street  
EAST LONDON, 5201  
Tel: 043 742 0041

3.1.5 Mechanical engineer :

RNA Consulting Engineers  
Postal address:  
7 King Street  
EAST LONDON, 5201  
Tel: 043 742 0041

3.1.6 Civil engineer:

CSE Consulting Engineers  
Postal address:  
PO Box 15825  
EAST LONDON, 5205  
Tel: 043 726 3565

3.1.7 Security engineer:

**To be appointed at a later stage if necessary**

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---

3.1.8 Other (if any):

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3.2 Name and telephone number of design consultant's contact person:

3.2.1 Construction project managers/ Principal Agent:

**AS PER ABOVE 3.1**

---

3.2.2 Architects:

**AS PER ABOVE 3.1**

---

3.2.3 Structural engineer:

**AS PER ABOVE 3.1**

---

3.2.4 Electrical engineer:

**AS PER ABOVE 3.1**

---

3.2.5 Mechanical engineer:

**AS PER ABOVE 3.1**

---

3.2.6 Civil engineer:

**AS PER ABOVE 3.1**

---

3.2.7 Security engineer:

**To be appointed at a later stage if necessary**

3.2.8 Other (if any):

#### 4. THE WORKS

Nature of the works:

Completion of the following to facilitate Riverview Primary School which will accommodate Grades R to Grade 6, with the following facilities:

Modular Prefabricated Construction System to be utilised for the following facilities to be constructed on a raft foundation for all buildings: Administration and Nutrition Block, Grade R Classroom Block, Two Classroom Block and Storerooms (x2), Computer, Library and Science Classroom Block, Multi-Purpose Centre and Store Block.

Conventional construction to be utilised for the following facilities: Staff and Paraplegic Toilet Block (1 x Male Toilet; 1 x Urinal; 2 x Female Toilet; 1 x Paraplegic Toilet), Learners Toilet Block (2 x Male Toilet; 1 x Urinal; 6 x Female Toilet), Grade R Toilets Block (3 x Toilets).

Commencement date:

\_\_\_\_\_

Completion date:

\_\_\_\_\_

Contractor: \_\_\_\_\_ Date: \_\_\_\_\_

Employer: \_\_\_\_\_ Date: \_\_\_\_\_

THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.

ALL CONTRACTORS THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER CONTRACTOR ON THE SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

# **ADDENDUM D**

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## **Environmental Management Plan**

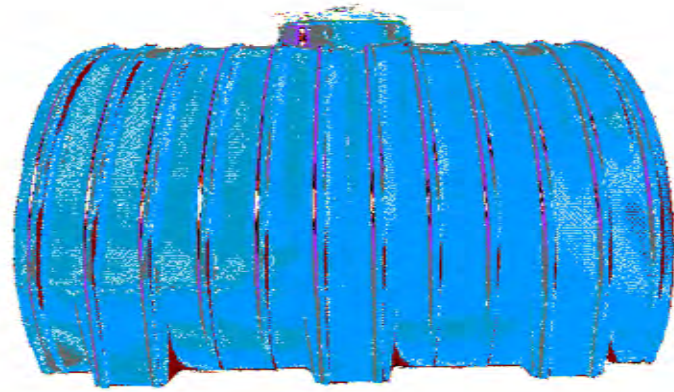
TO BE PROVIDED BY THE SUCCESSFUL TENDERER

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# **ADDENDUM E**

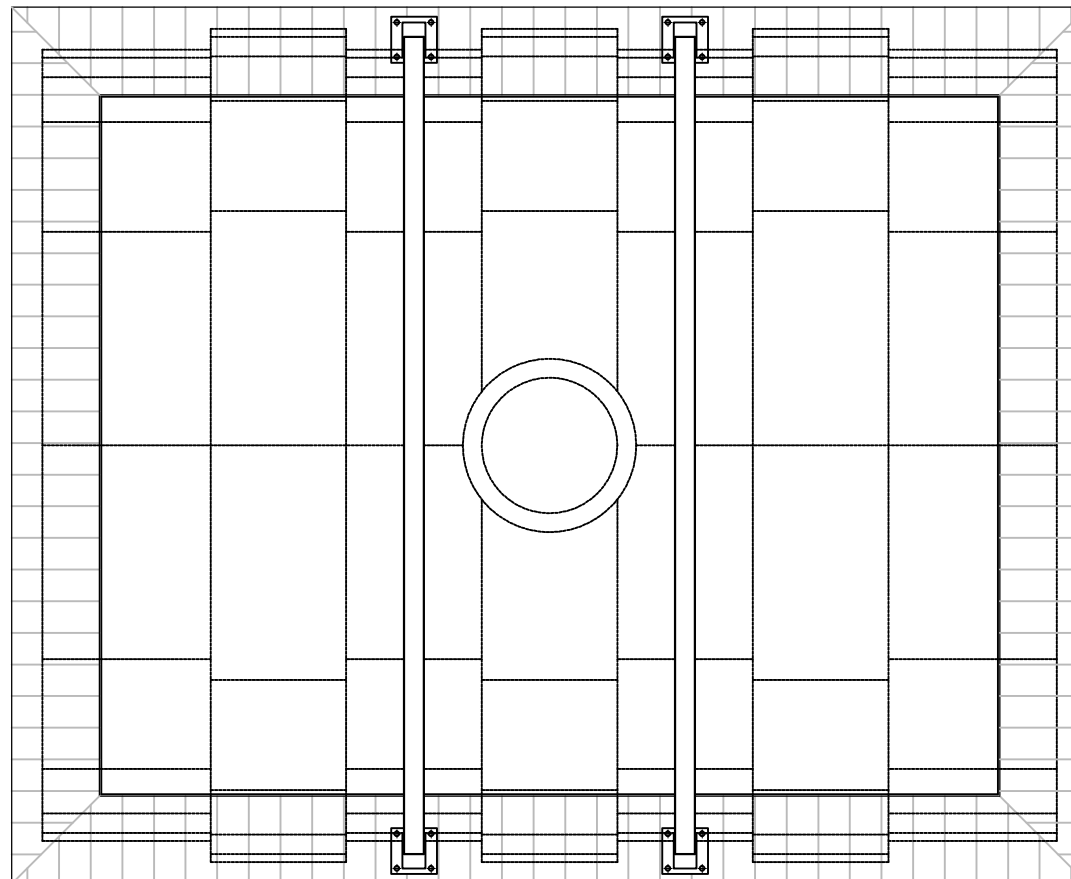
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## **DRAWINGS**



LIGHT BEIGE WITH SCHOOL NAME EMBOSSED ON THE OUTSIDE  
 'ASIDI' NAME EMBOSSED ON THE OUTSIDE.  
 5500 LITRE POLYETHYLENE HORIZONTAL WATER STORAGE TANK  
 COMPLETE, SIZE 2545 x 2090 x 1505mm

3mm GALV. STEEL FLAT  
 AROUND THE TANK WAIST



TANK STAND TO BE 2700mm(L)x2200mm(W) &  
 1000mm ABOVE NGL

HORIZONTAL RAINWATER TANK STAND  
 DETAIL PLAN

NOTES:  
 1. DRAWING NOT TO BE SCALED. FIGURED DIMENSIONS TO BE USED.  
 2. ALL LEVELS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.  
 3. CONTRACTOR TO REPORT ANY DISCREPANCIES REGARDING DIMENSIONS, LEVELS & NOTES TO THE ARCHITECT BEFORE CONSTRUCTION COMMENCES.  
 4. ALL STRUCTURAL WORK TO ENGINEER'S DETAIL, SPECIFICATION & APPROVAL.  
 5. ALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

REVISIONS		
NO.	DATE	DESCRIPTION
0		ISSUED FOR

CONSULTANTS	
PRINCIPAL AGENT	Ngonyama Okpanum & Associates
QUANTITY SURVEYORS	Mokate Monk & Du Plessis
ARCHITECTS	Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS	CSE Consulting
ELECTRICAL ENGINEERS	Richard Nzuza & Associates



133 LAKIN RD | BELMORIE | EAST LONDON | 6047 | 031 294 1338 | TEL: 07 040 143 3889 | FAX: 07 040 143 3882  
 1 EAST LONDON | JOHANNESBURG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | UMHATHO | MELBURN | POLDORNE | NGUYA

	NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-			A1
DRAWN	-			SCALE SCALE 1:100 1:50
VERIFIED	-			STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AS = AS BUILT
VALIDATED	-			

EASTERN CAPE SCHOOL BUILDING  
 PROGRAMME



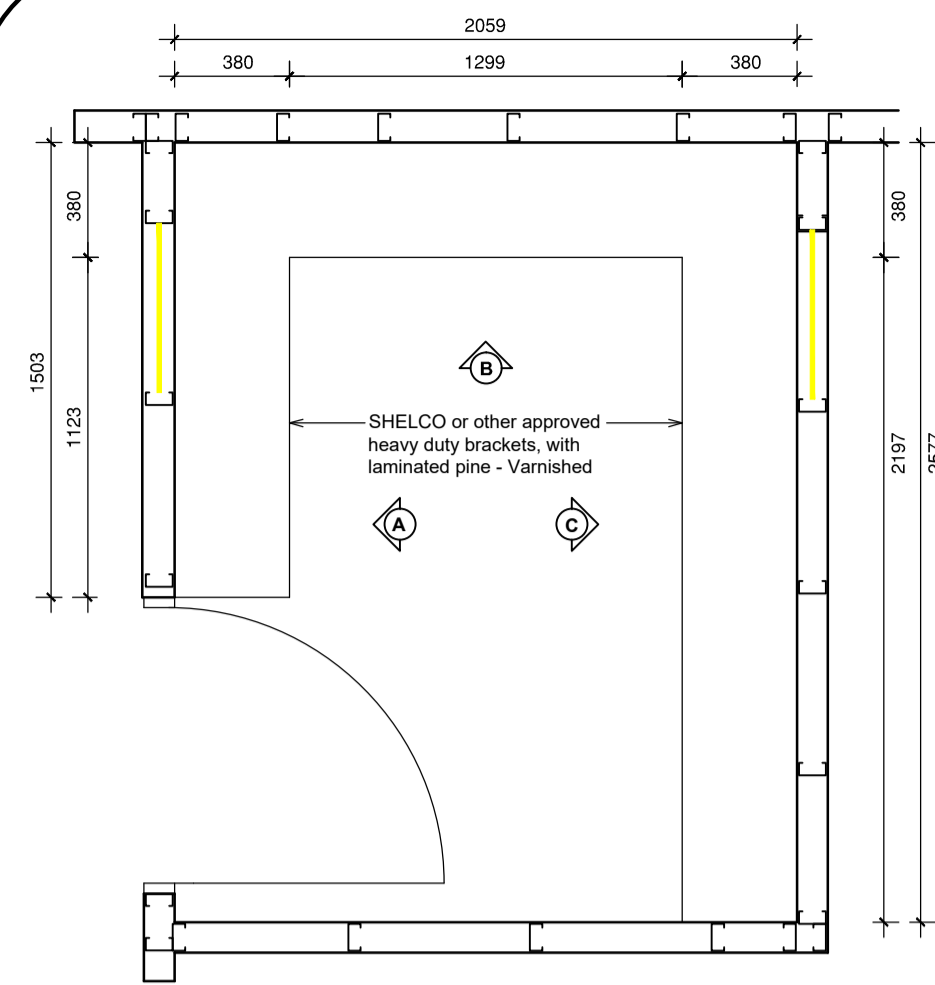
DEPARTMENT OF EDUCATION | INDEPENDENT DEVELOPMENT TRUST

PROJECT  
**IDT SCHOOL BUILDING PROGRAMME**

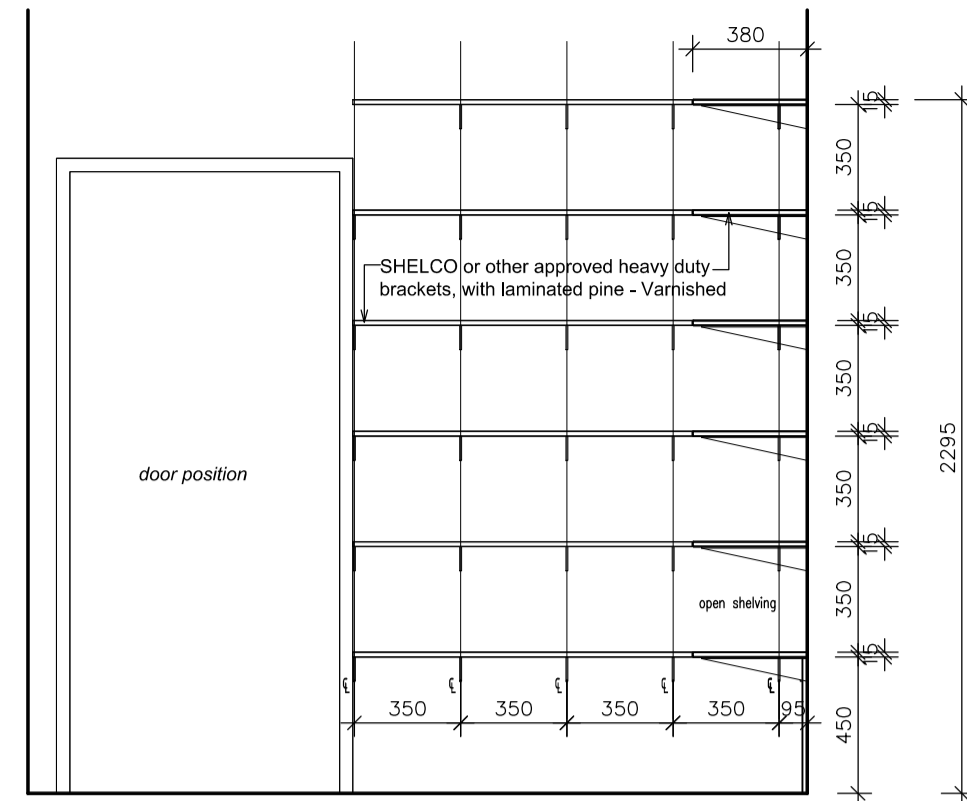
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EMIS No: 200400967

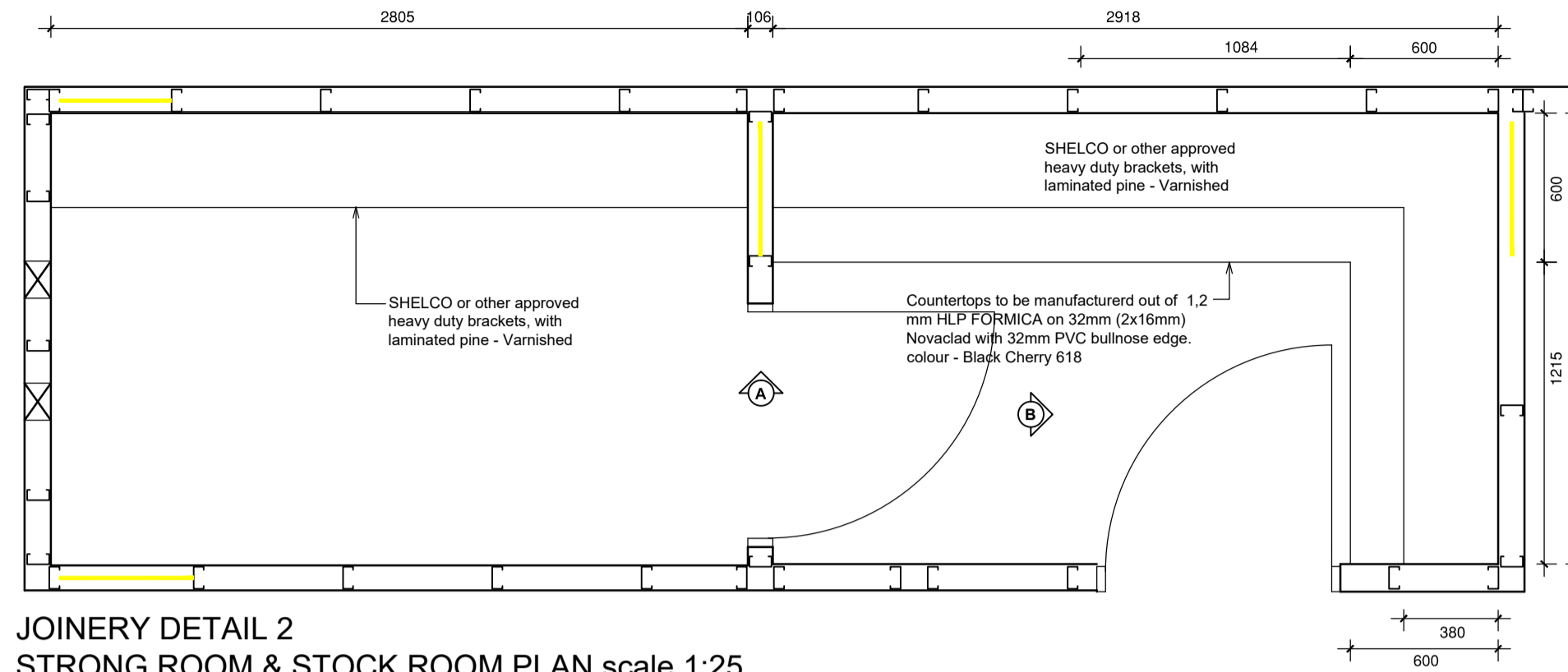
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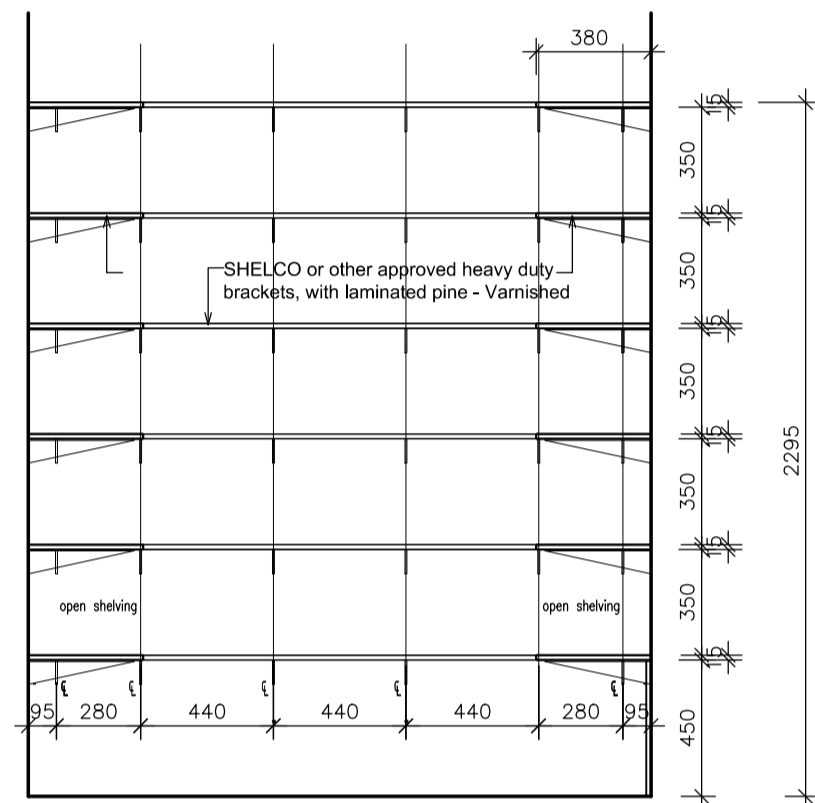
JOINERY DETAIL 1  
STORE ROOM PLAN scale 1:25



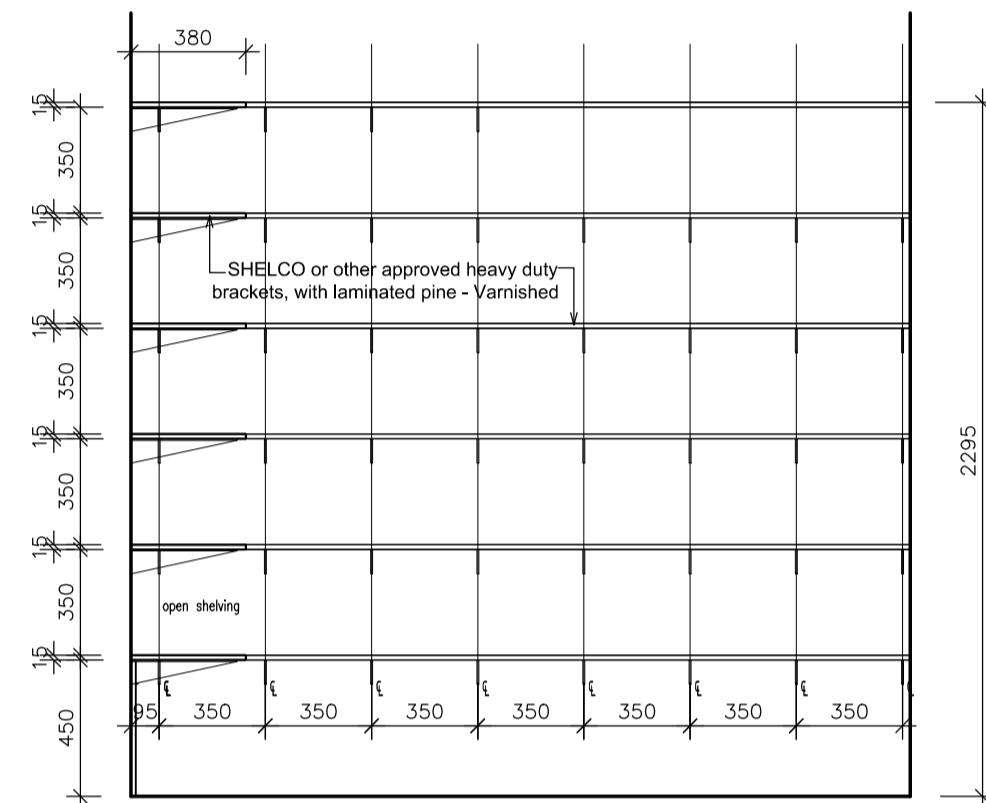
JOINERY ELEVATION A  
scale 1:25



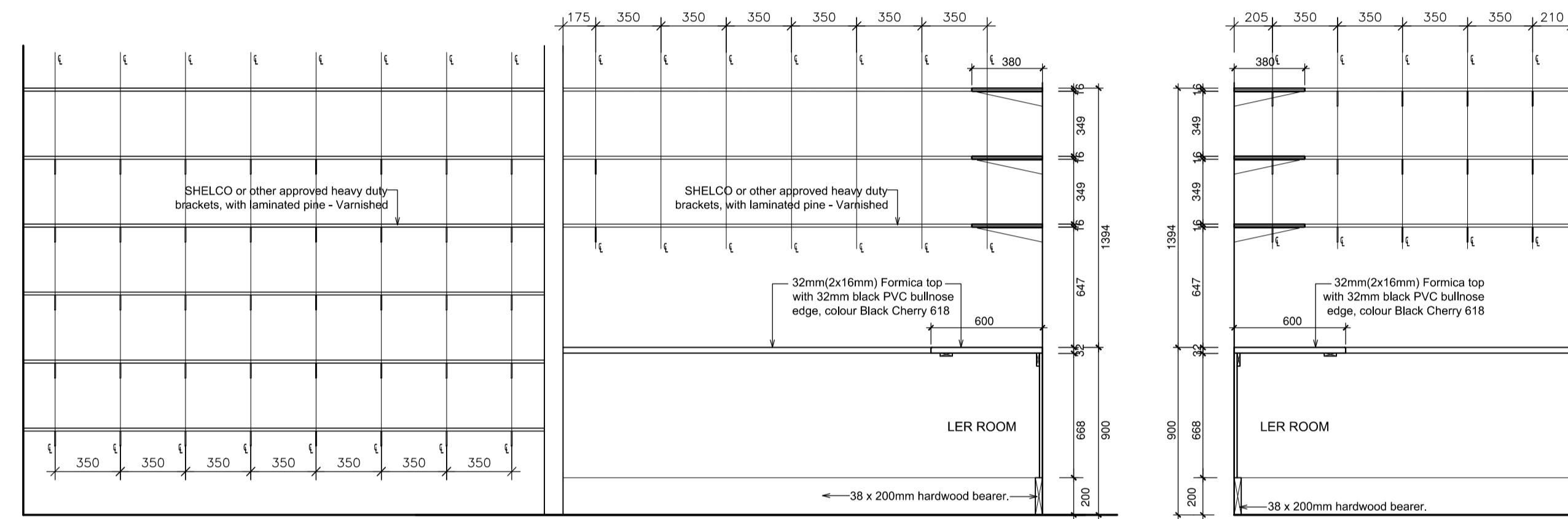
JOINERY DETAIL 2  
STRONG ROOM & STOCK ROOM PLAN scale 1:25



JOINERY ELEVATION B  
scale 1:25

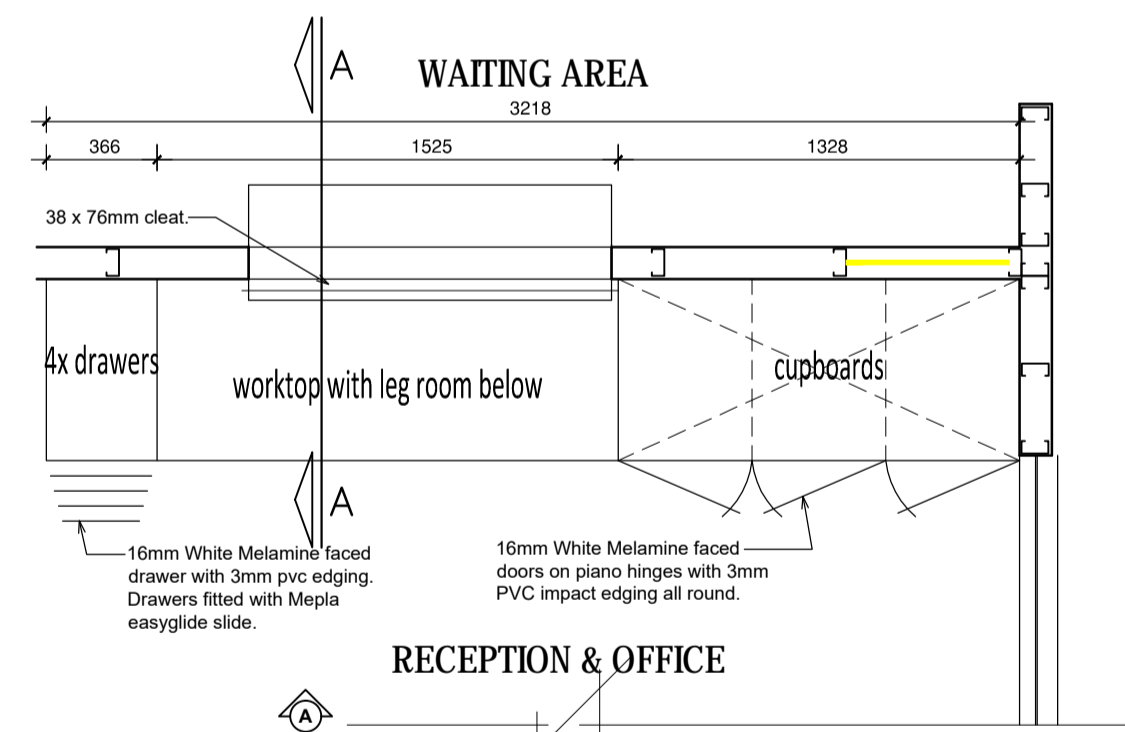


JOINERY ELEVATION C  
scale 1:25

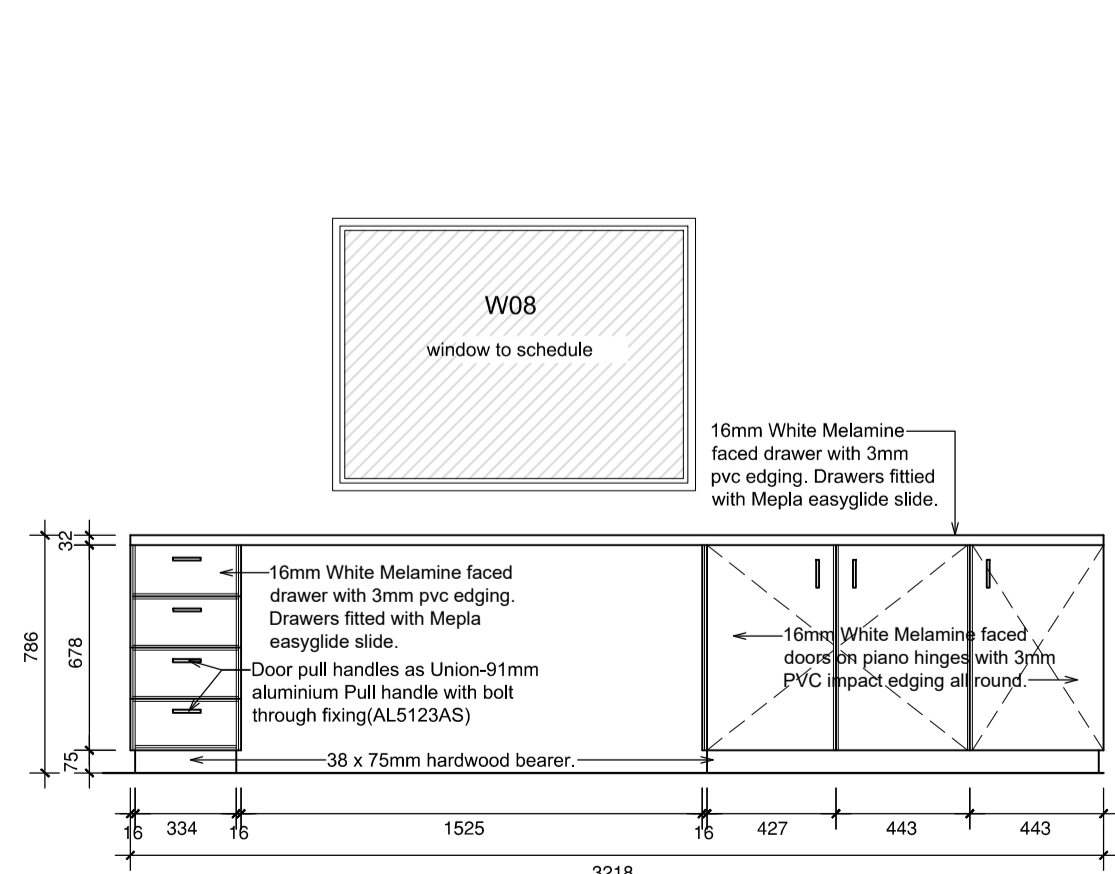


JOINERY ELEVATION A  
scale 1:25

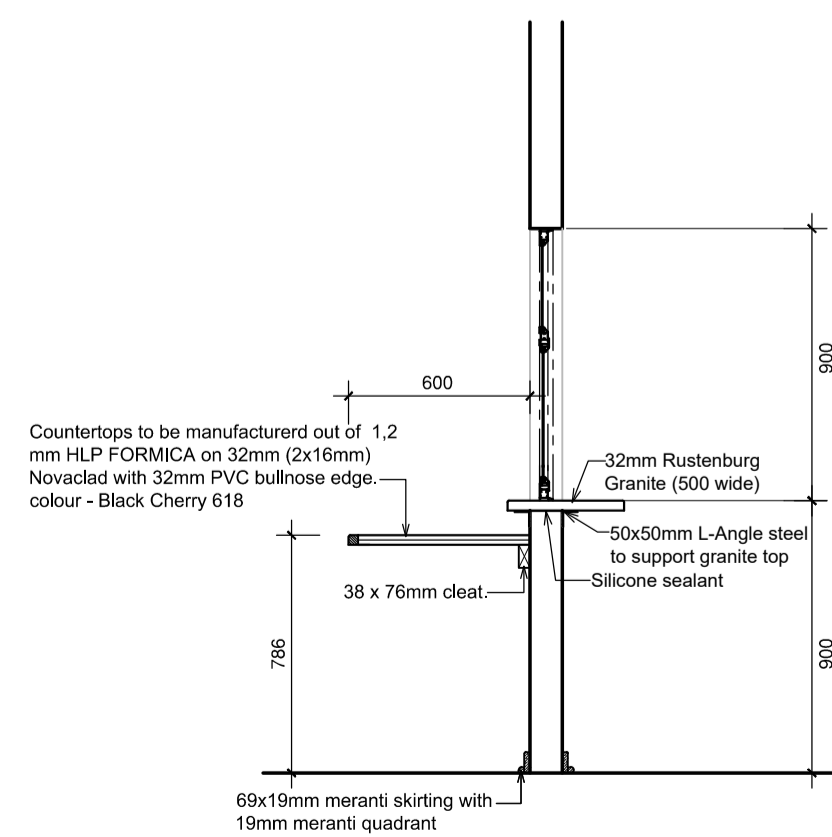
JOINERY ELEVATION B  
scale 1:25



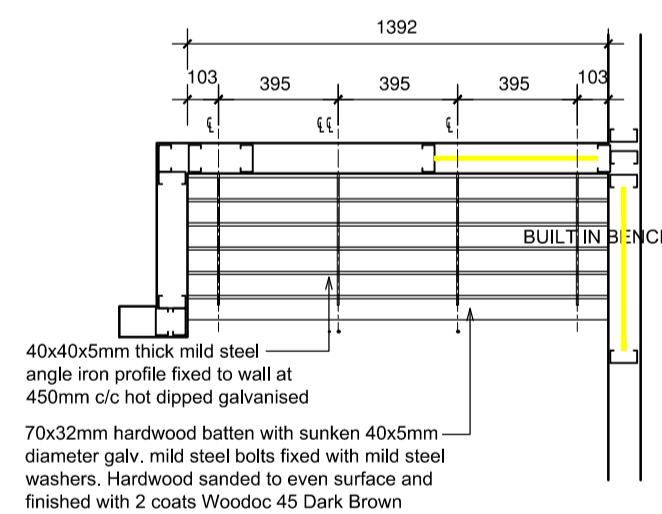
JOINERY DETAIL 3: RECEPTION & GENERAL OFFICE  
PLAN scale 1:25



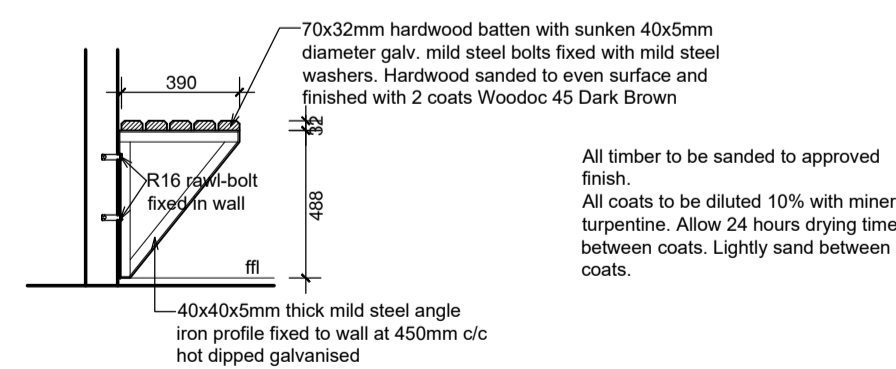
JOINERY DETAIL 3 & 4  
ELEVATION A scale 1:25



JOINERY DETAIL 3  
SECTION A-A scale 1:25



JOINERY DETAIL 5  
BENCH PLAN scale 1:25



JOINERY DETAIL 5  
SECTIONAL ELEVATION scale 1:25

- NOTES:
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REVISIONS		
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0		ISSUED FOR

CONSULTANTS	
PRINCIPAL AGENT	Ngonyama Okpanum & Associates
QUANTITY SURVEYORS	Mokate Monk & Du Plessis
ARCHITECTS	Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS	CSE Consulting
ELECTRICAL ENGINEERS	Richard Nzuza & Associates

**Ngonyama & Associates (Pty) Ltd**  
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EAST LONDON | JOHANNESBURG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | MMABATHO | NELSPRUIT | POLKOVANE | NGUYA

NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-		A1
DRAWN	-		SCALE 1: 100
VERIFIED	-		STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
VALIDATED	-		

**EASTERN CAPE SCHOOL BUILDING PROGRAMME**

**basic education**  
Department: Basic Education  
REPUBLIC OF SOUTH AFRICA

**idt**  
Independent Development Trust

DEPARTMENT OF INDEPENDENT DEVELOPMENT TRUST  
EDUCATION TRUST

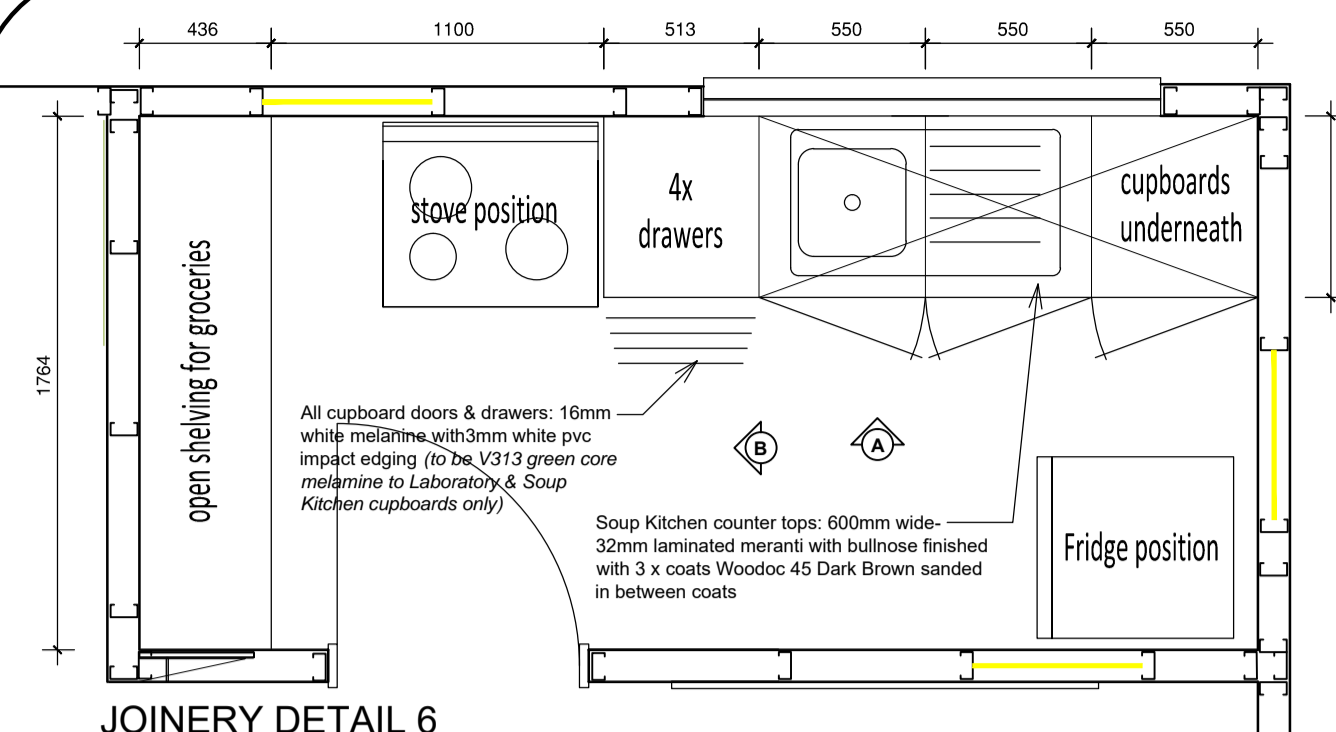
**PROJECT**  
**IDT SCHOOL BUILDING PROGRAMME**

**DRAWING TITLE**  
**RIVERVIEW PROPOSED JOINERY, SHEET 01**

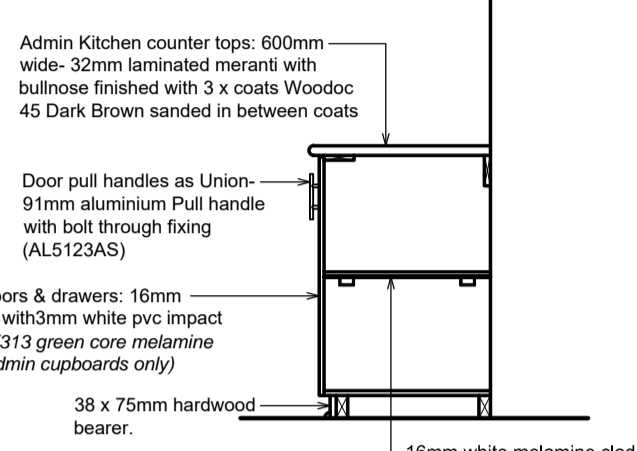
**EMIS No: 200400967**

DISCIPLINE	DRAWING NUMBER	REVISION
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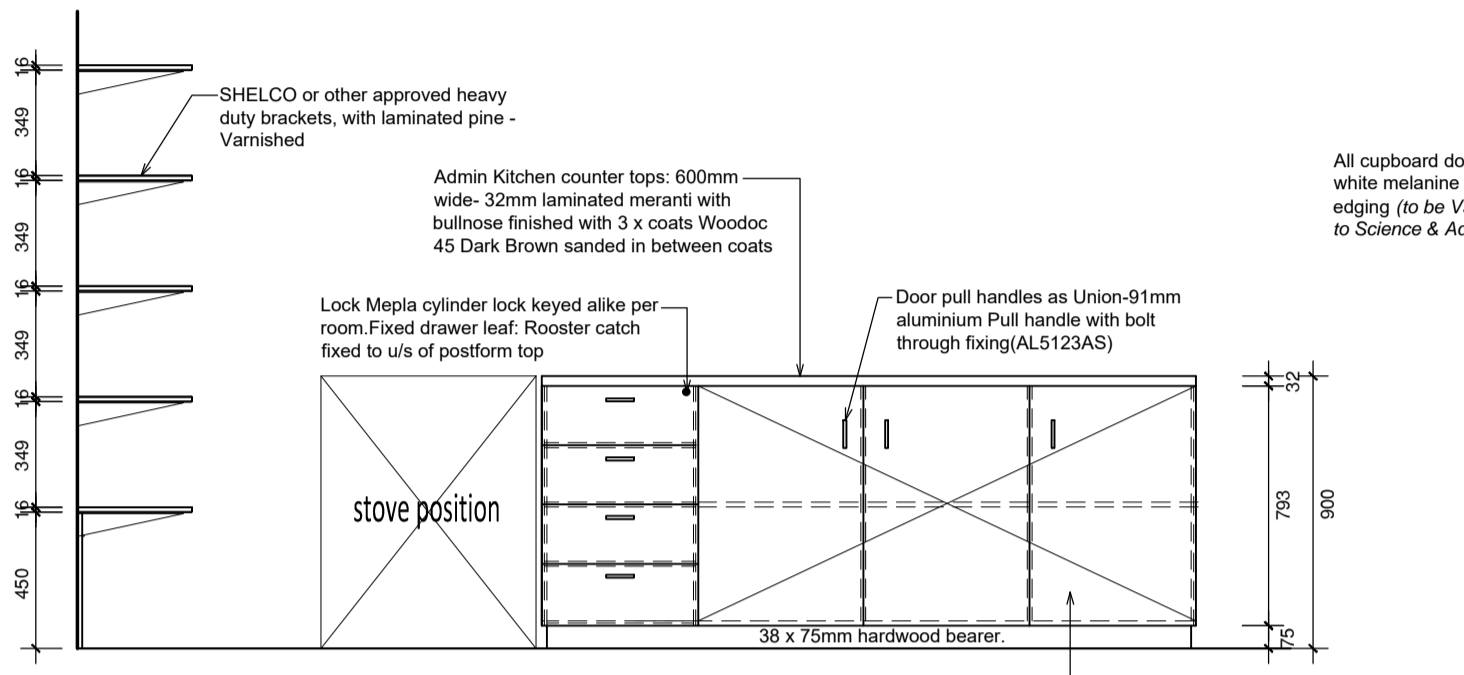




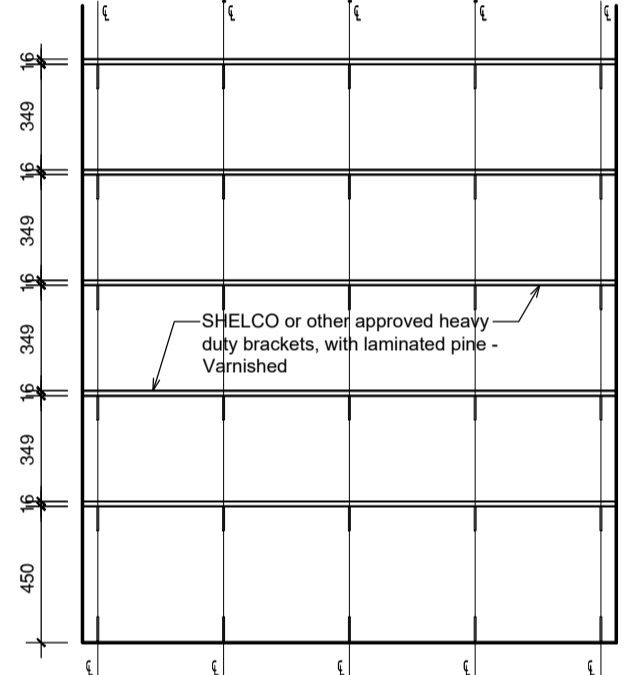
JOINERY DETAIL 6  
GRADE-R KITCHEN PLAN scale 1:25



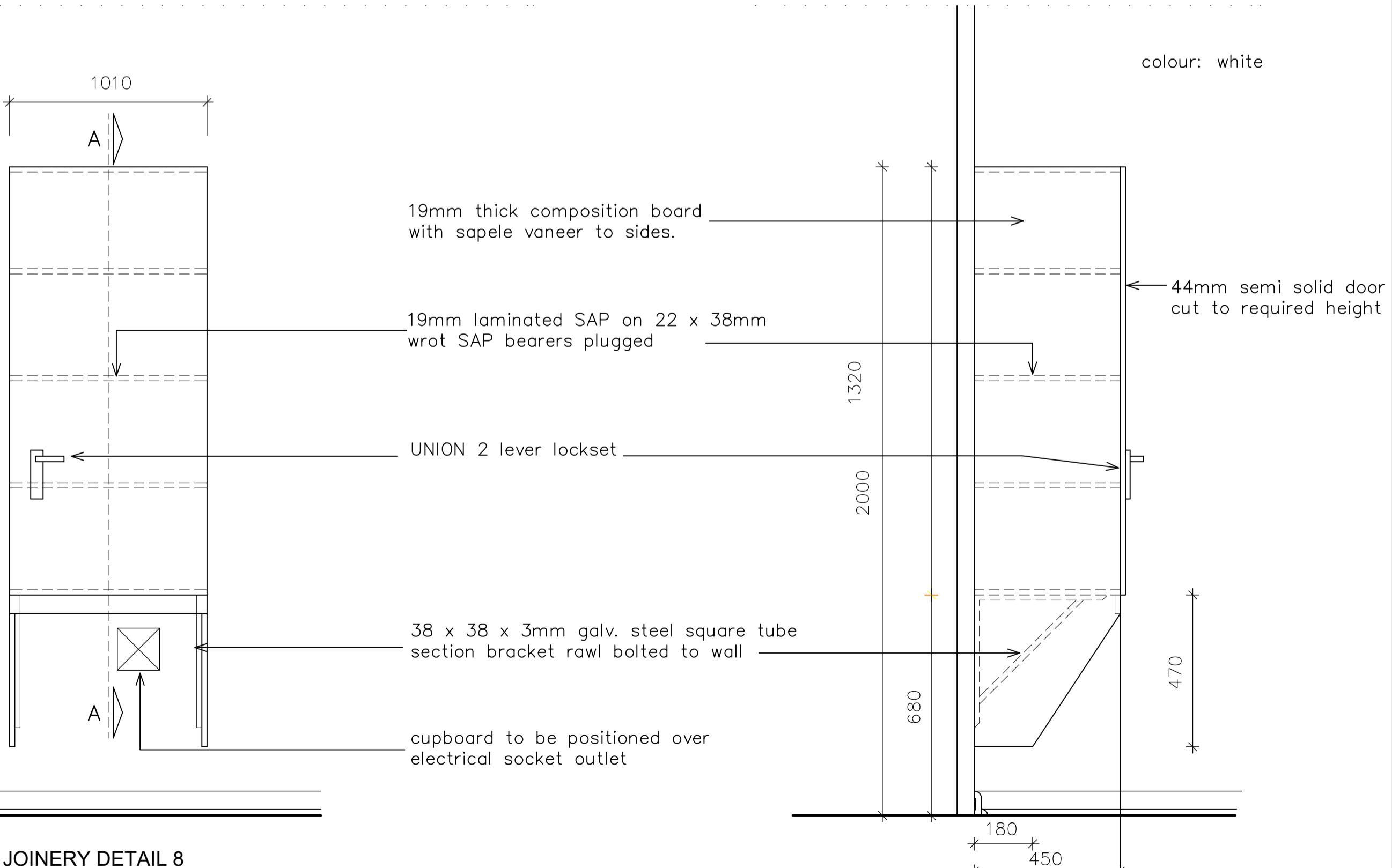
JOINERY DETAIL 6  
SECTION A-A scale 1:25



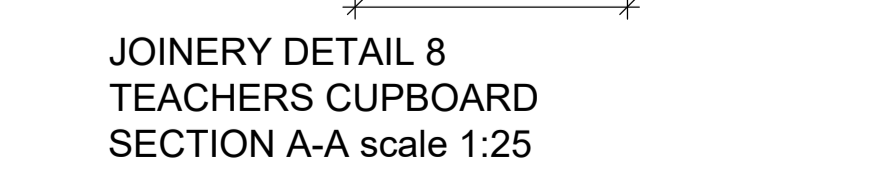
JOINERY DETAIL 6  
ELEVATION A scale 1:25



JOINERY DETAIL 6  
ELEVATION B scale 1:25



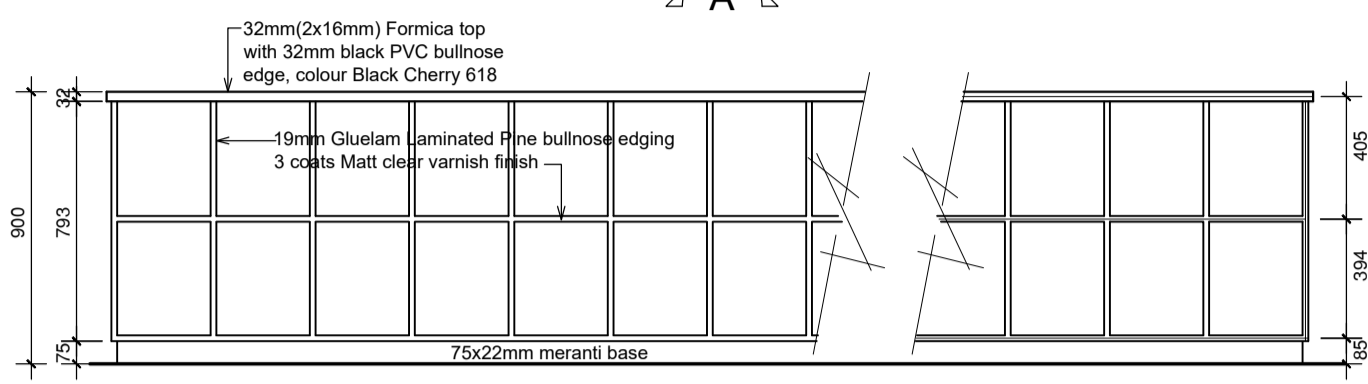
JOINERY DETAIL 8  
TEACHERS CUPBOARD scale 1:25



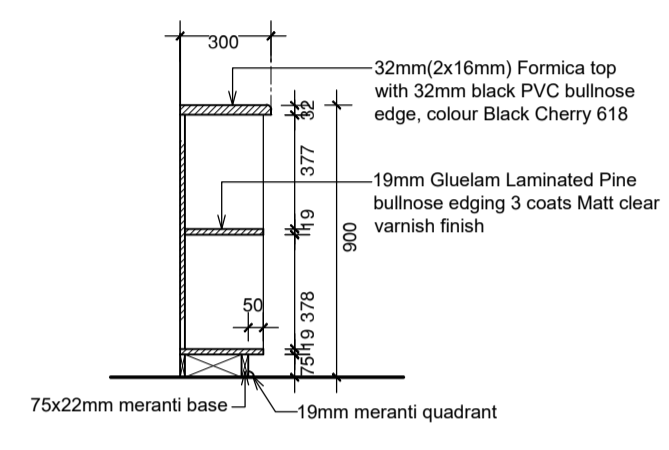
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TEACHERS CUPBOARD  
SECTION A-A scale 1:25



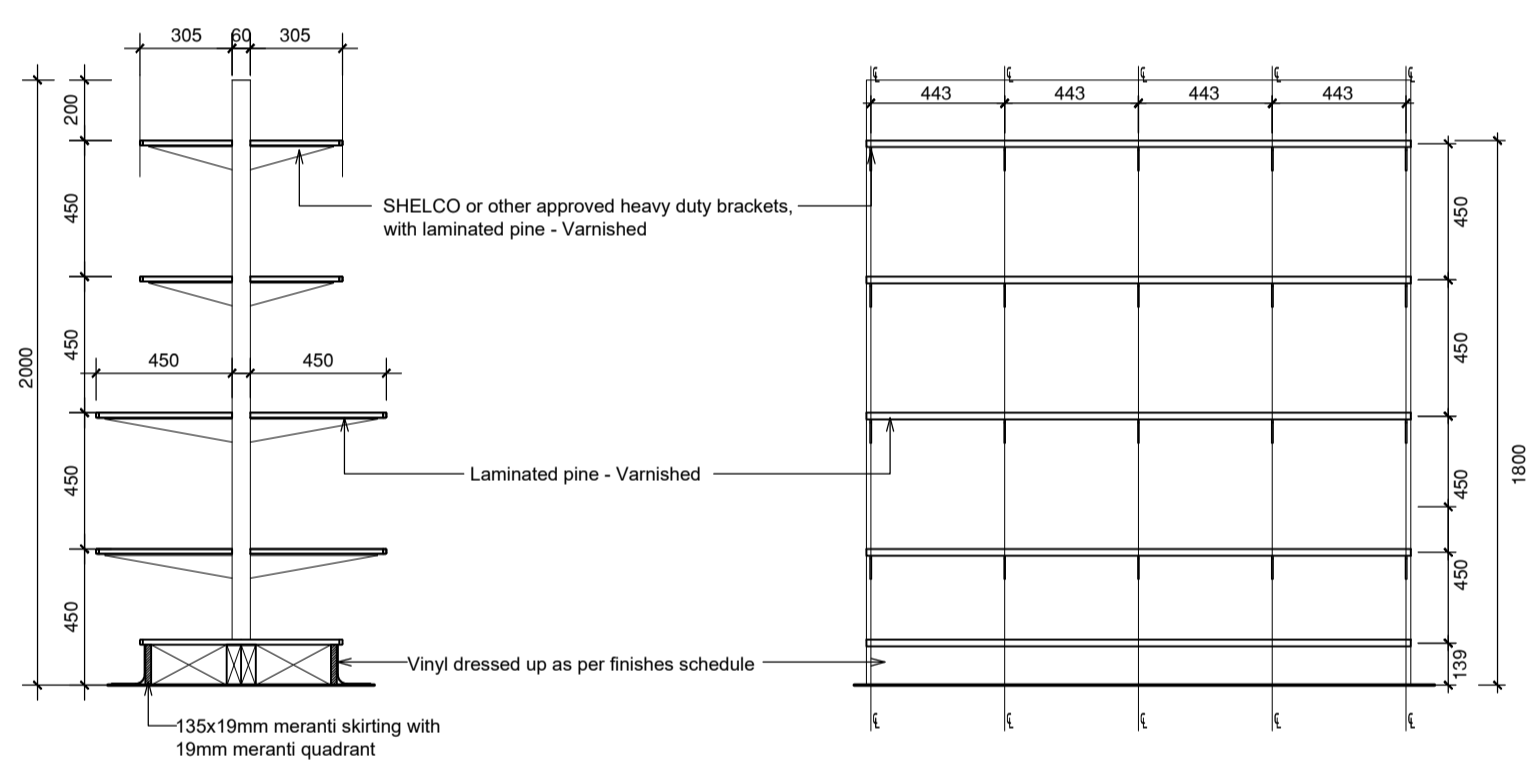
JOINERY DETAIL 7  
BAG SHELVES PLAN scale 1:25



JOINERY DETAIL 7  
ELEVATION A

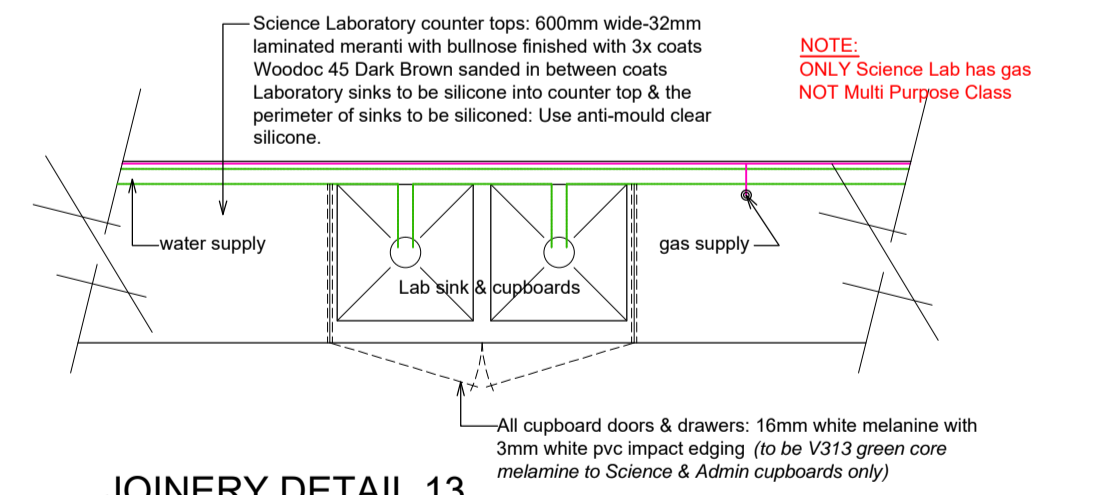


JOINERY DETAIL 7  
SECTION A-A scale 1:25

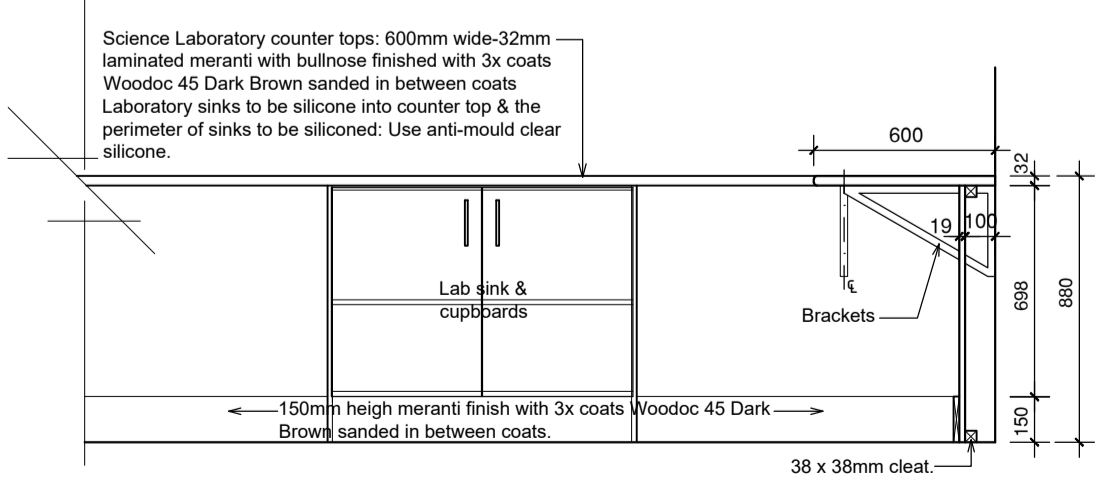


JOINERY DETAIL 9  
BOOKSHELVES scale 1:25

JOINERY DETAIL 9  
BOOKSHELVES  
ELEVATION scale 1:25



JOINERY DETAIL 13  
PLAN scale 1:25



JOINERY DETAIL 13  
FRONT ELEVATION scale 1:25

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DRAWN	-		SCALE 1: 100
VERIFIED	-		STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
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**EASTERN CAPE SCHOOL BUILDING PROGRAMME**

basic education  
Department of Basic Education  
REPUBLIC OF SOUTH AFRICA

idT  
Independent Development Trust

DEPARTMENT OF INDEPENDENT DEVELOPMENT TRUST

**IDT SCHOOL BUILDING PROGRAMME**

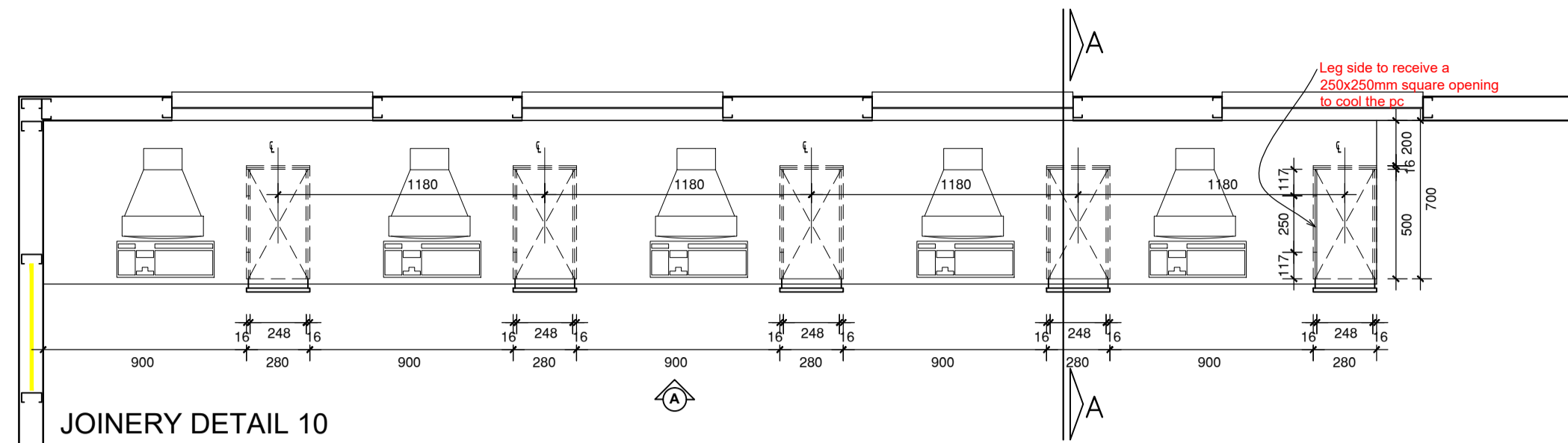
DRAWING TITLE

**RIVERVIEW PROPOSED JOINERY, SHEET 02**

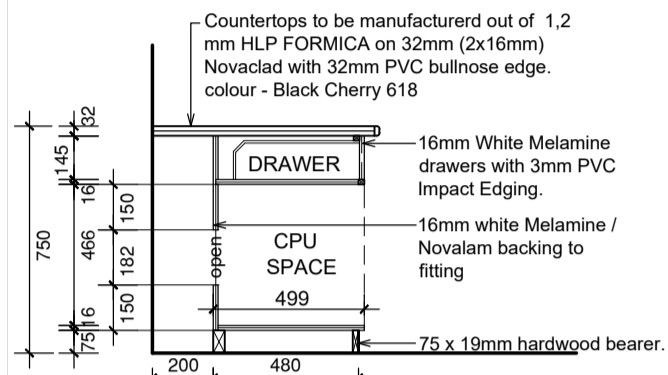
EMIS No: 200400967

DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RIV/JOINERY/6.102

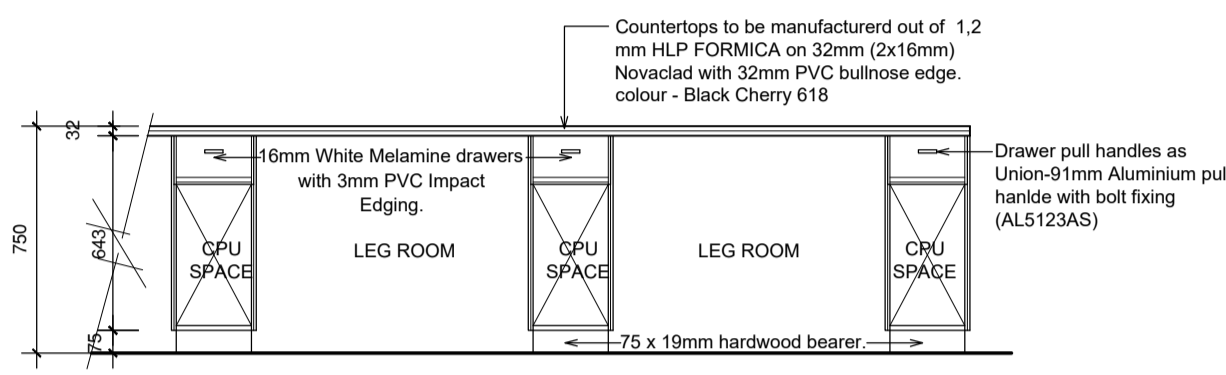




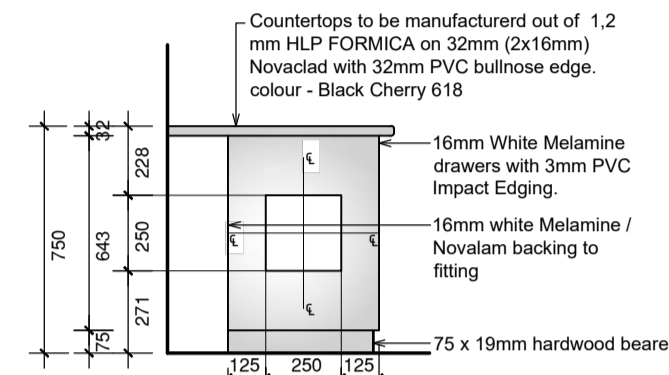
JOINERY DETAIL 10  
COMPUTER STATIONS  
PLAN scale 1:25



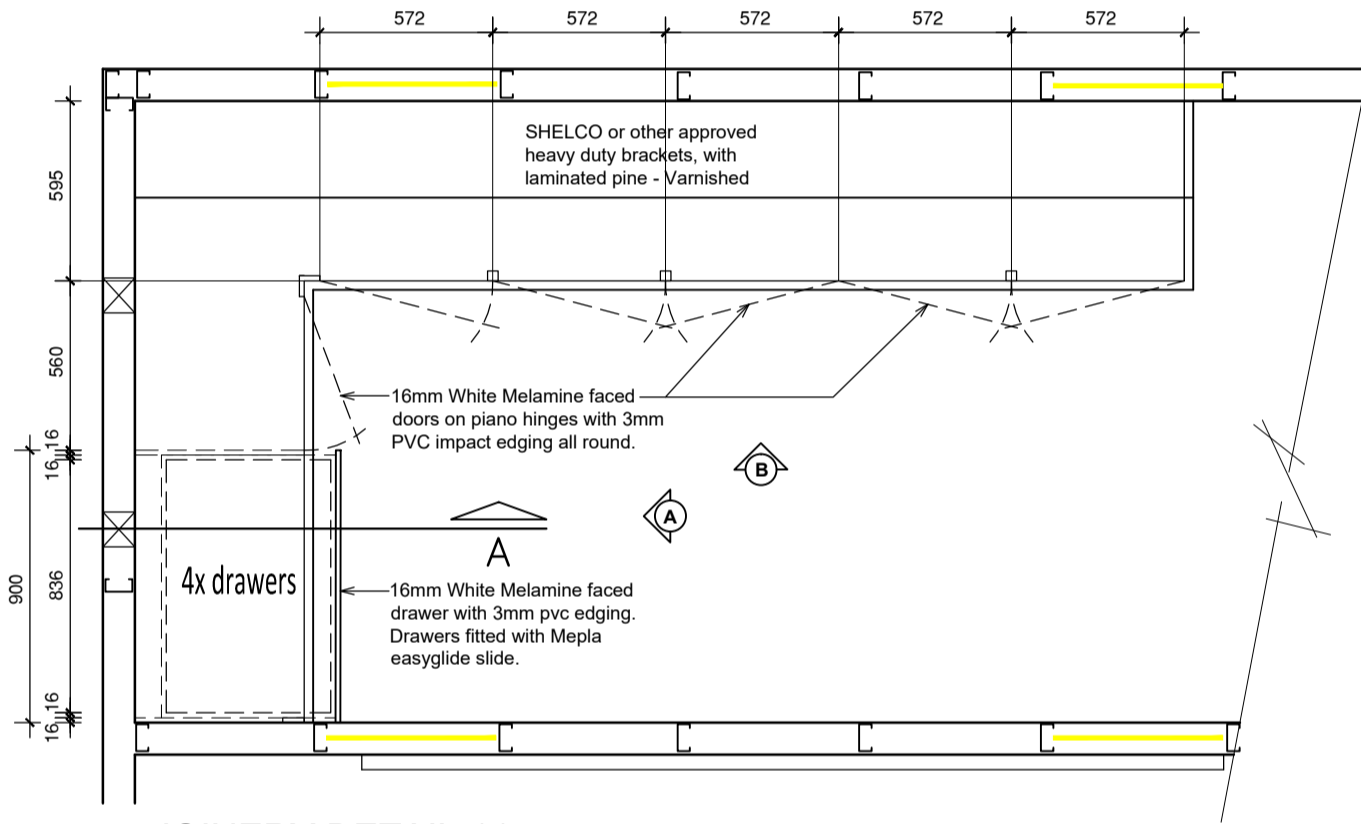
JOINERY DETAIL 10  
SECTION A-A scale 1:25



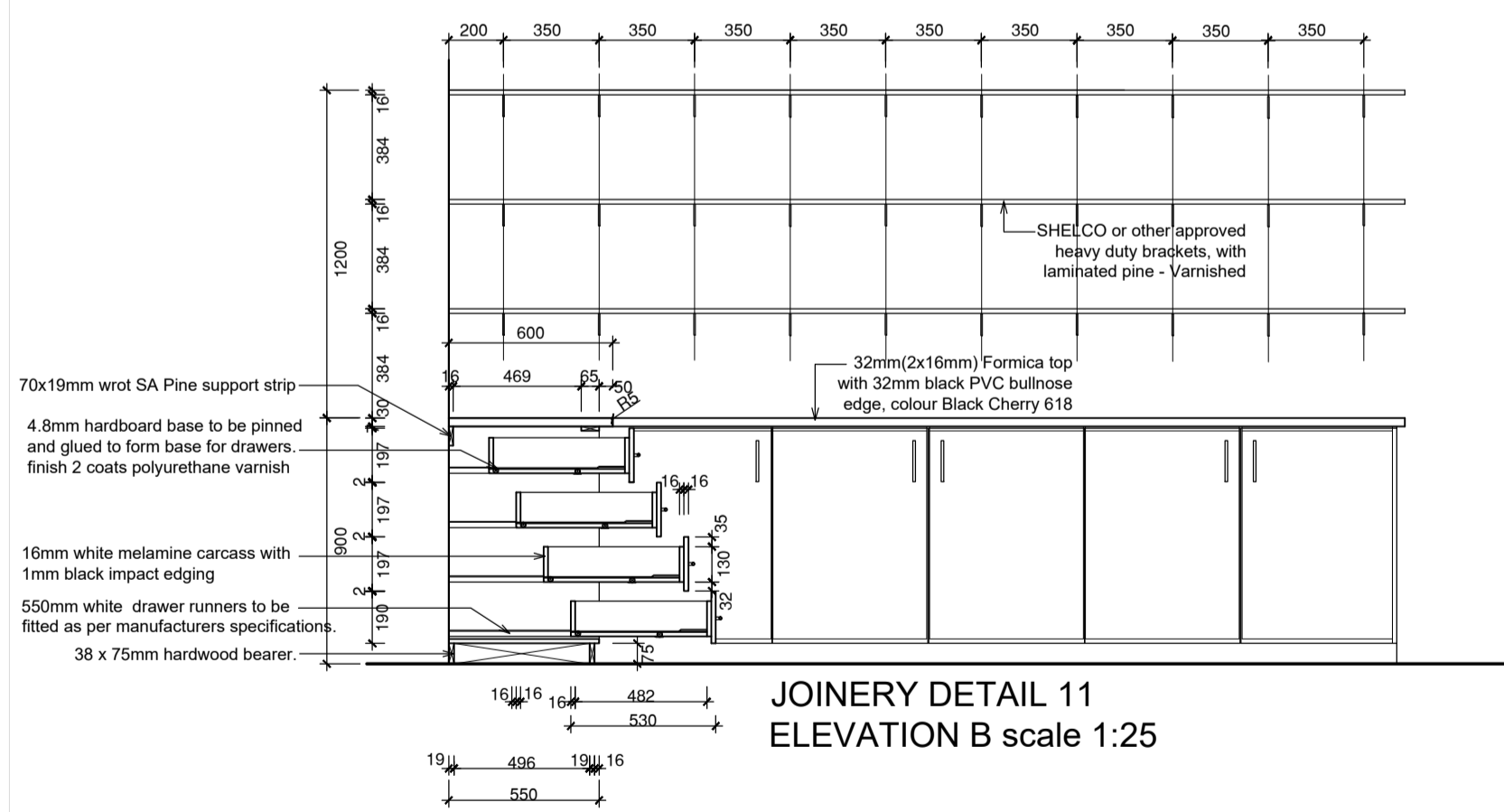
JOINERY DETAIL 10  
ELEVATION A scale 1:25



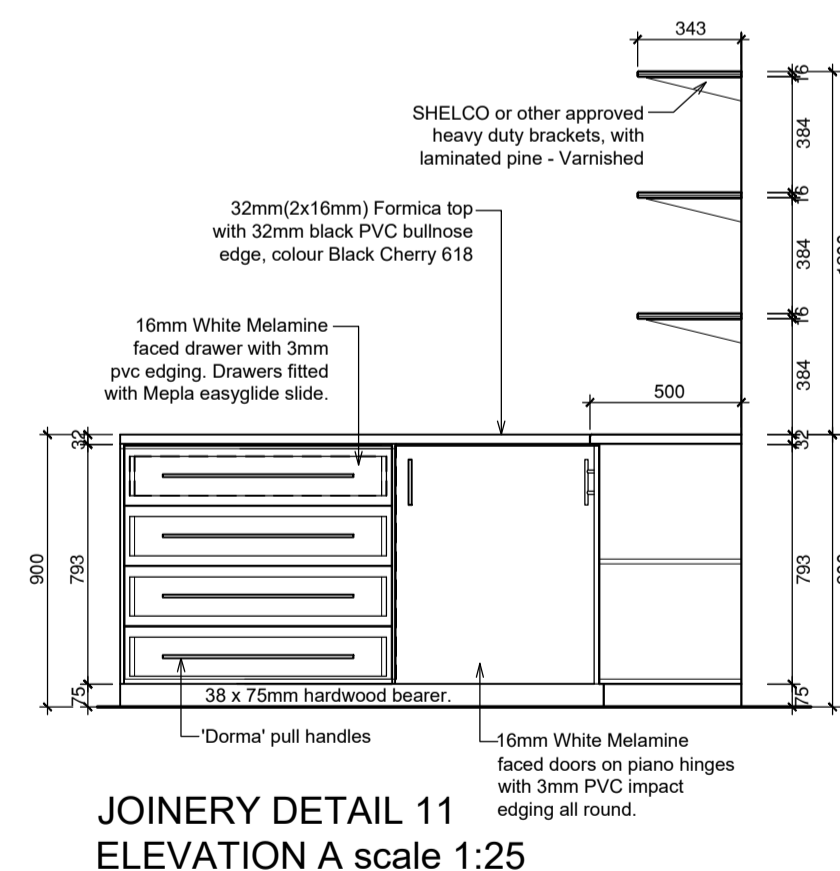
JOINERY DETAIL 10  
SECTION A-A scale 1:25



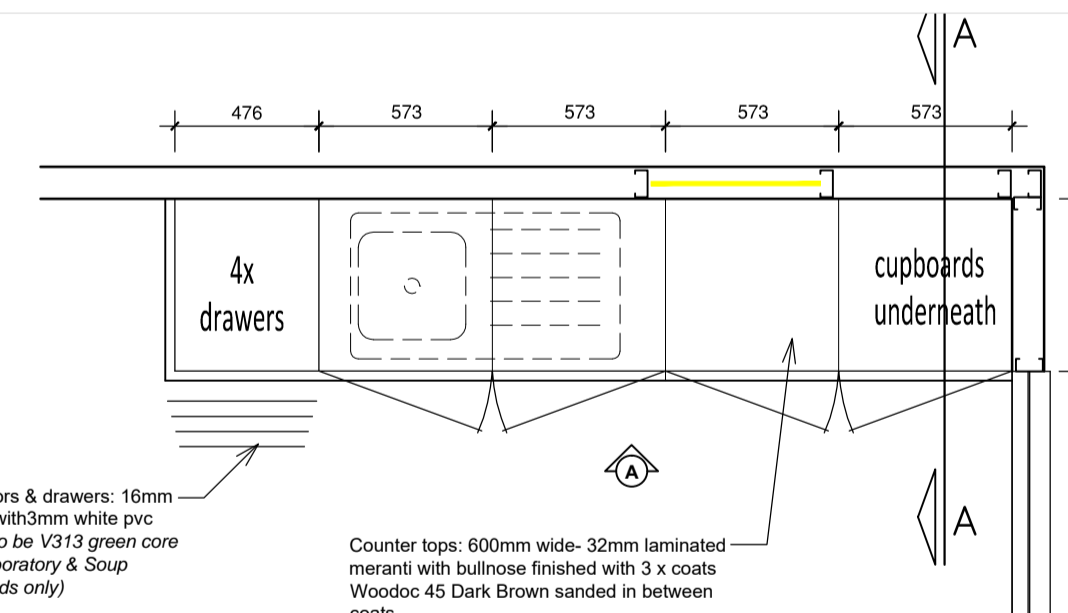
JOINERY DETAIL 11  
STORE ROOM PLAN scale 1:25



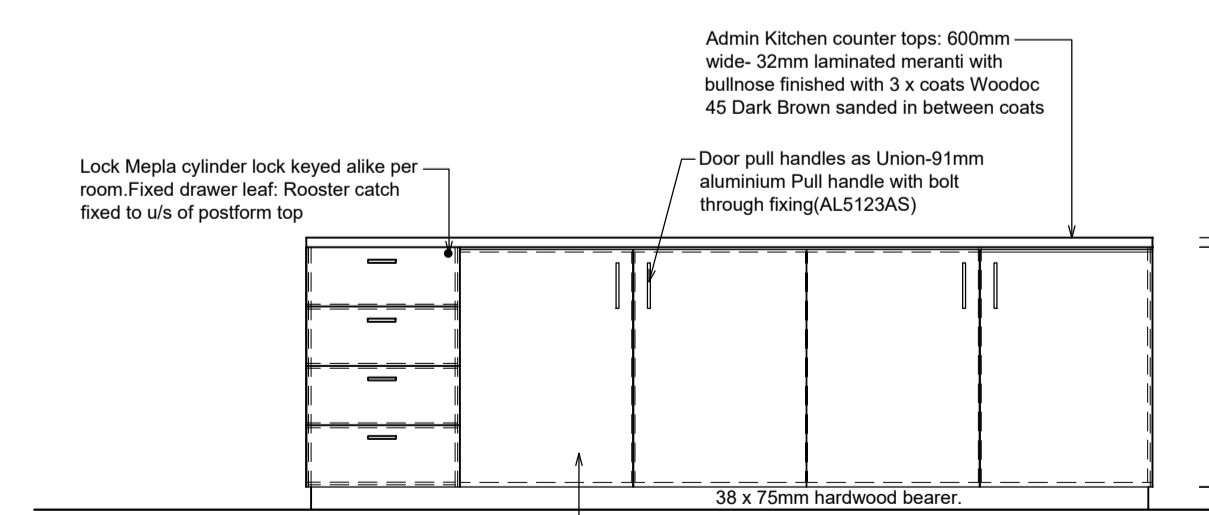
JOINERY DETAIL 11  
ELEVATION B scale 1:25



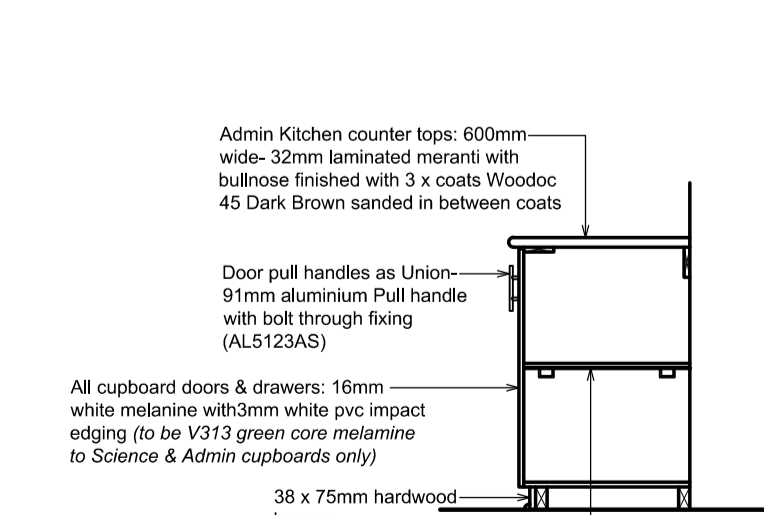
JOINERY DETAIL 11  
ELEVATION A scale 1:25



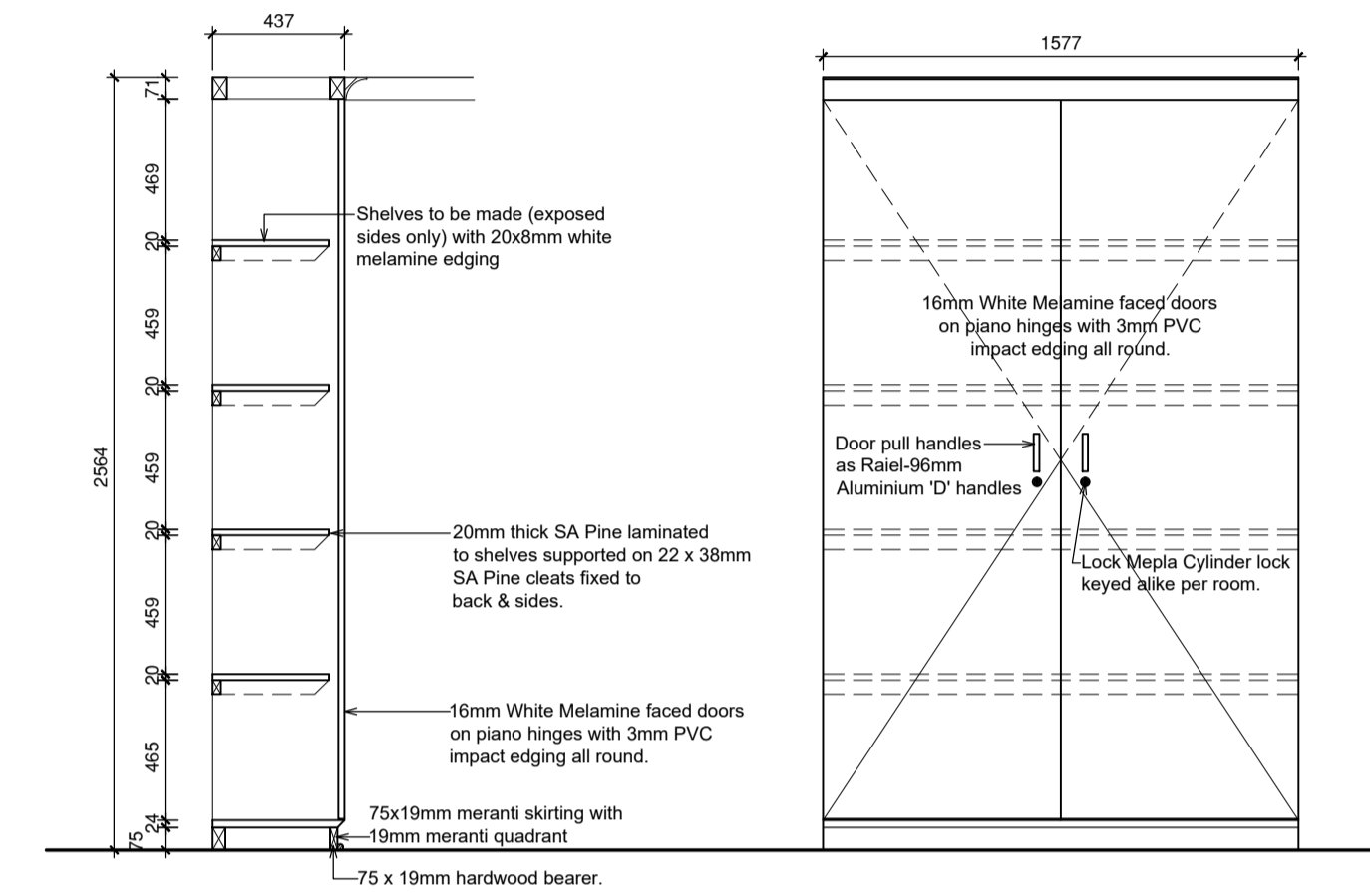
JOINERY DETAIL 12  
MULTI PURPOSE KITCHEN SINK  
PLAN scale 1:25



JOINERY DETAIL 12  
ELEVATION A scale 1:25



JOINERY DETAIL 12  
SECTION A-A scale 1:25



JOINERY DETAIL 14  
SECTION A-A scale 1:25

JOINERY DETAIL 14  
FRONT ELEVATION scale 1:25

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URBAN & INTERIOR DESIGNERS

13 LORAIN RD | SELBORNE | EAST LONDON | 5247 | 021 (043 743 388) | FAX : 27 (043) 743 3882  
EAST LONDON | JOHANNESBURG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | MMABATHO | NELSPOORT | POLKOVANE | NGENGA

NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-		A1
DRAWN	-		SCALE 1: 100
VERIFIED	-		STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
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**EASTERN CAPE SCHOOL BUILDING PROGRAMME**

basic education  
Department of Basic Education  
REPUBLIC OF SOUTH AFRICA

idT  
Independent Development Trust

**DEPARTMENT OF INDEPENDENT DEVELOPMENT TRUST**

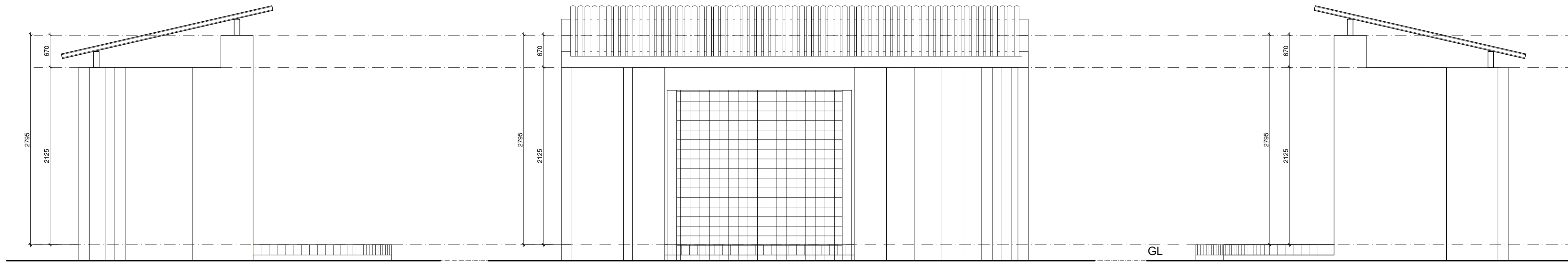
**PROJECT  
IDT SCHOOL BUILDING PROGRAMME**

**DRAWING TITLE  
RIVERVIEW PROPOSED JOINERY, SHEET 03**

**EMIS No: 200400967**

DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RIV/JOINERY/6.103

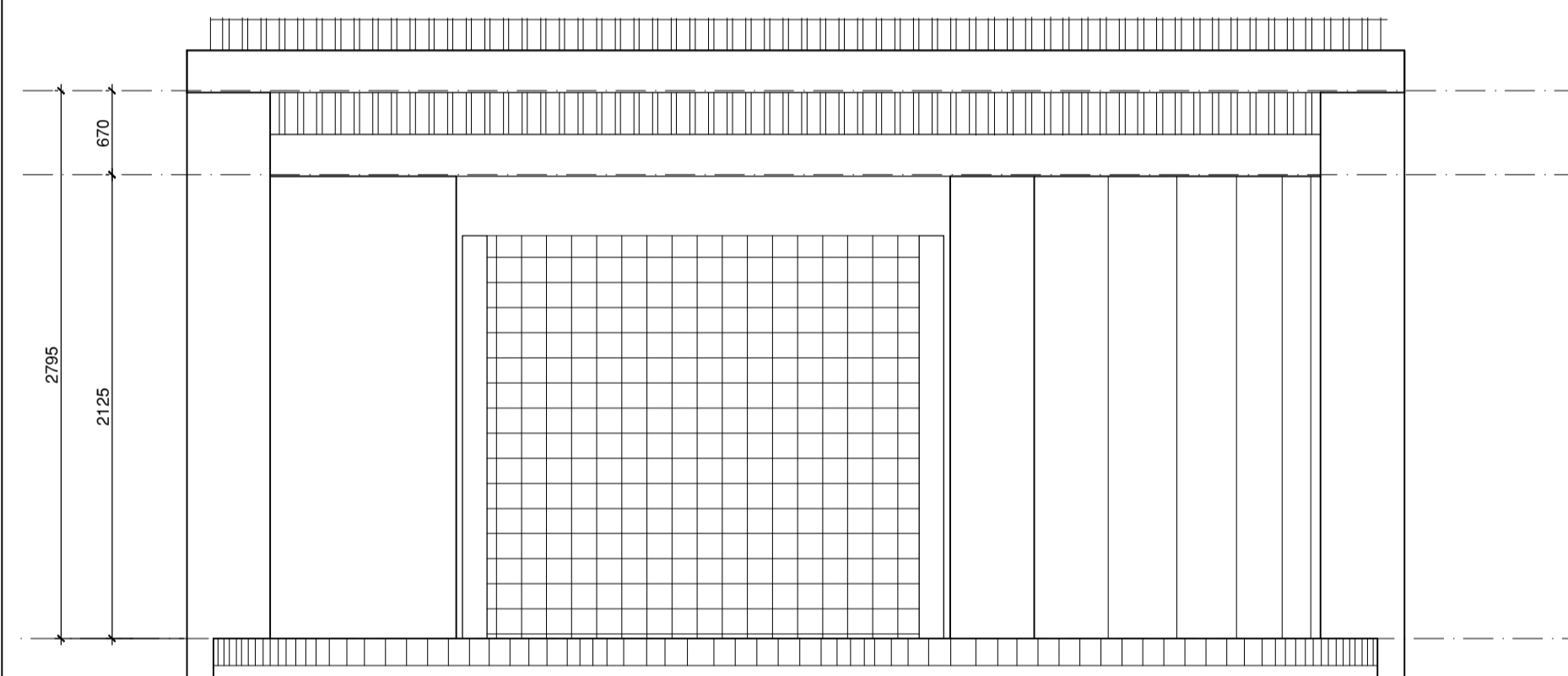




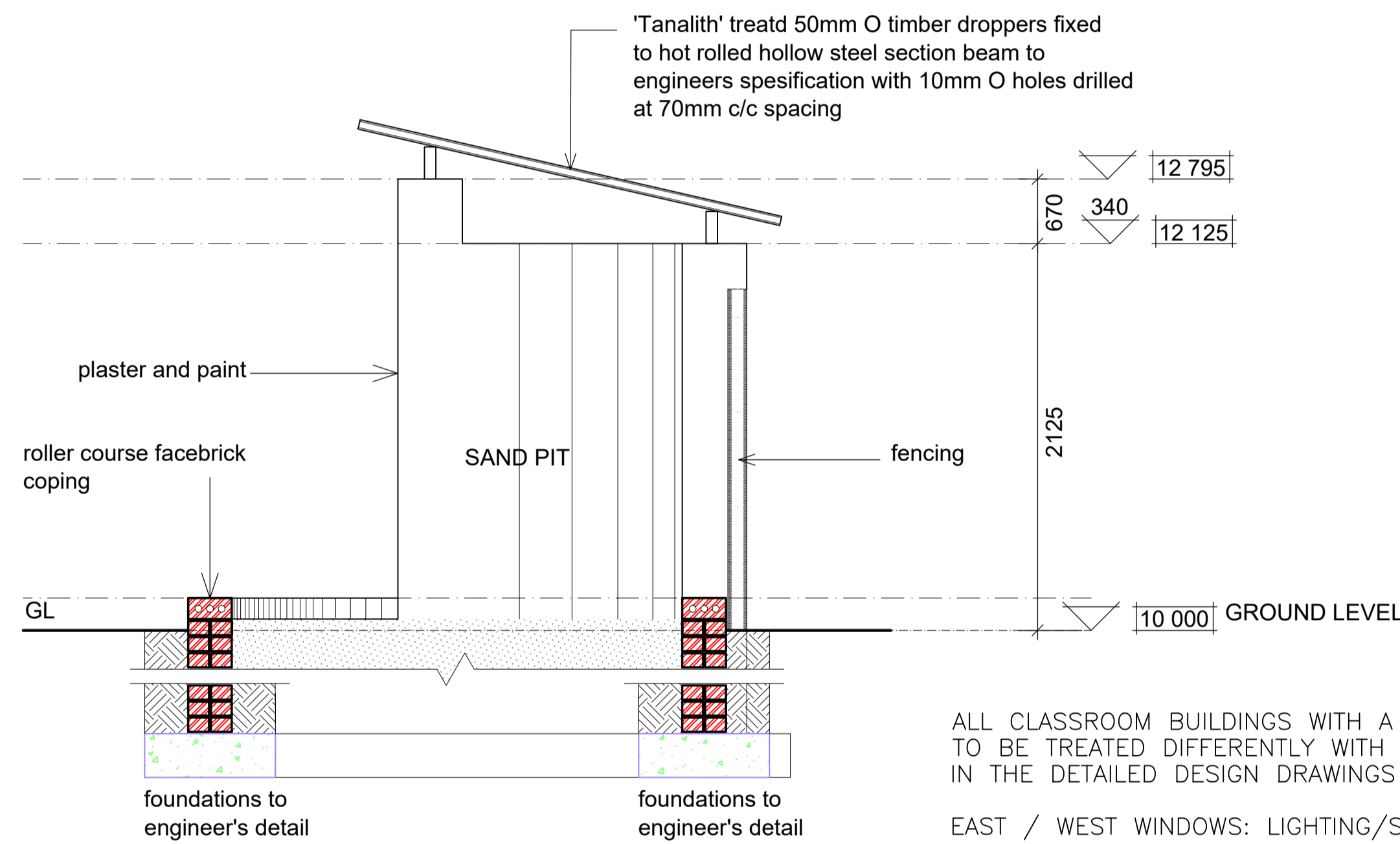
ELEVATION f  
scale 1:25

ELEVATION e  
scale 1:25

ELEVATION h  
scale 1:25

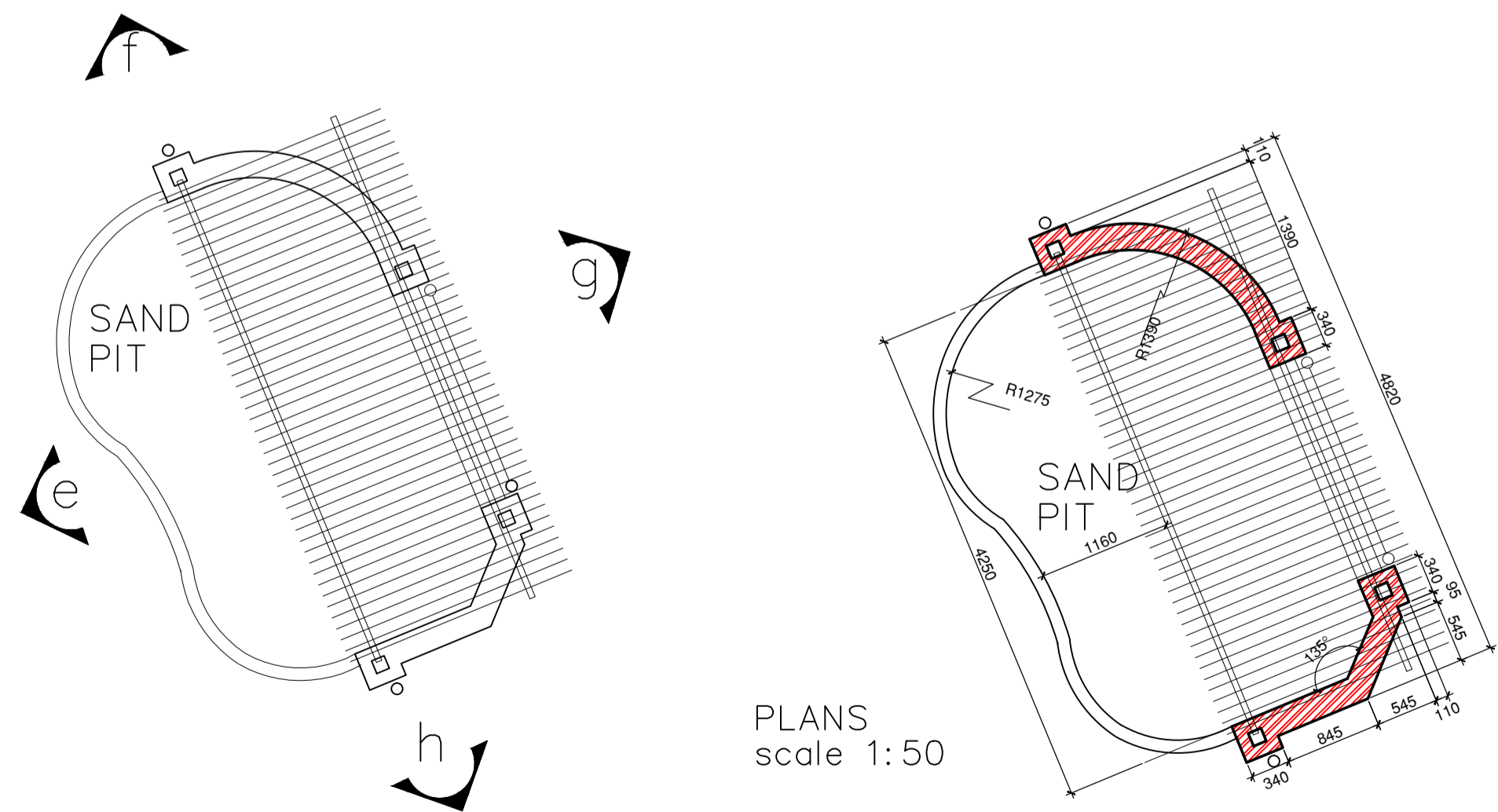


ELEVATION g  
scale 1:25



SECTION C-C  
scale 1:25

ALL CLASSROOM BUILDINGS WITH A NORTH-SOUTH ORIENTATION ARE TO BE TREATED DIFFERENTLY WITH EXTENDED EAVES. THIS IS SHOWN IN THE DETAILED DESIGN DRAWINGS  
EAST / WEST WINDOWS: LIGHTING/SHADING TO FUTURE DETAIL.



PLANS  
scale 1:50



EARLY CHILDHOOD DEVELOPMENT CENTRES

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1 EAST LONDON | JOHANNESBURG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | MAMABATHO | NELSPOORT | POLYMANNE | MONGER'S

	NAME	SIGNATURE	DATE	SHEET SIZE
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DRAWN	-			SCALE NTS
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EASTERN CAPE SCHOOL BUILDING PROGRAMME



DEPARTMENT OF INDEPENDENT DEVELOPMENT EDUCATION TRUST

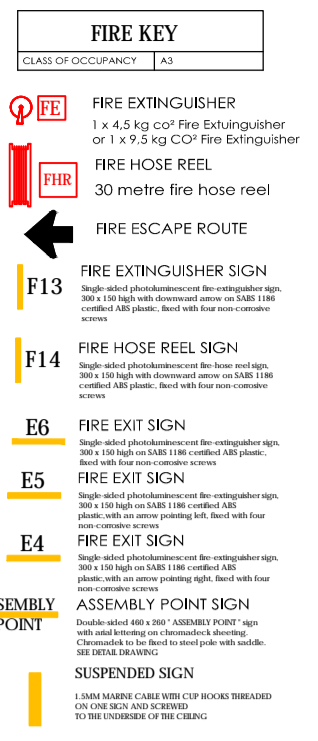
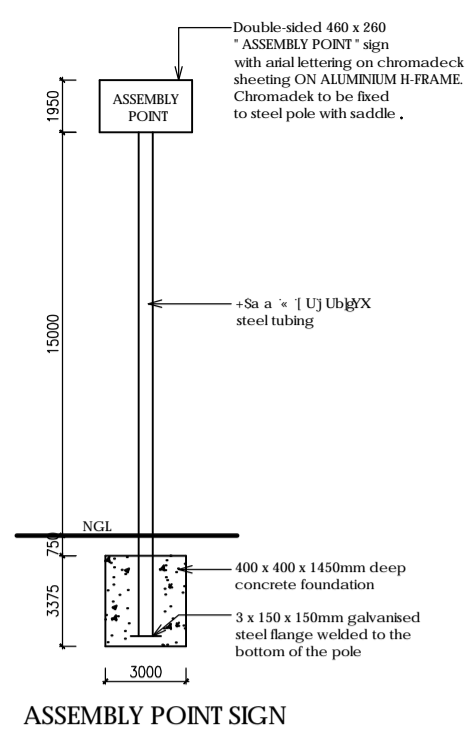
PROJECT  
IDT SCHOOL BUILDING PROGRAMME

DRAWING TITLE  
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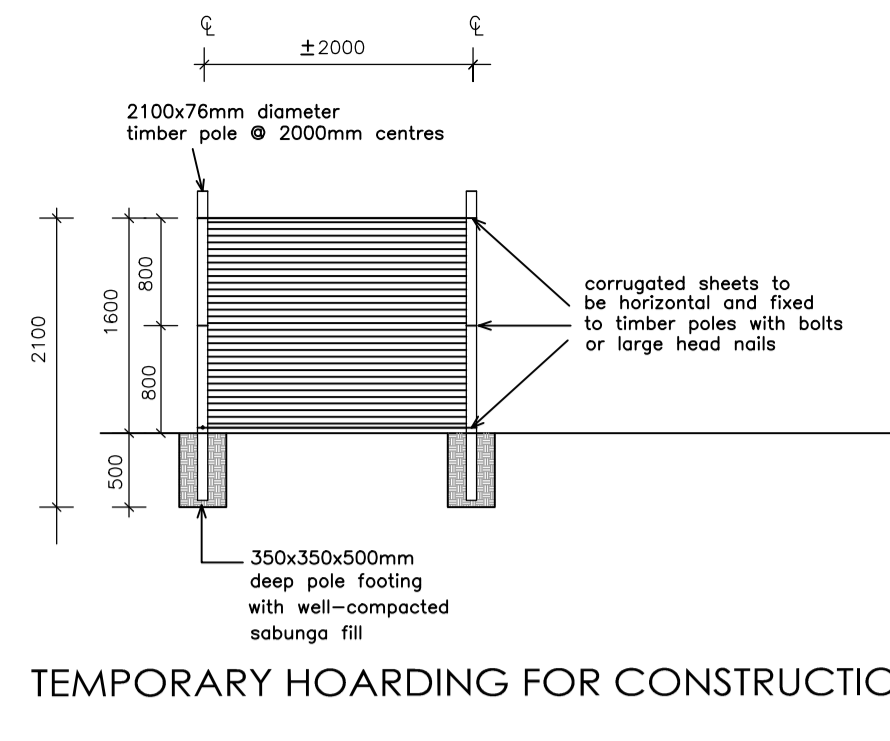
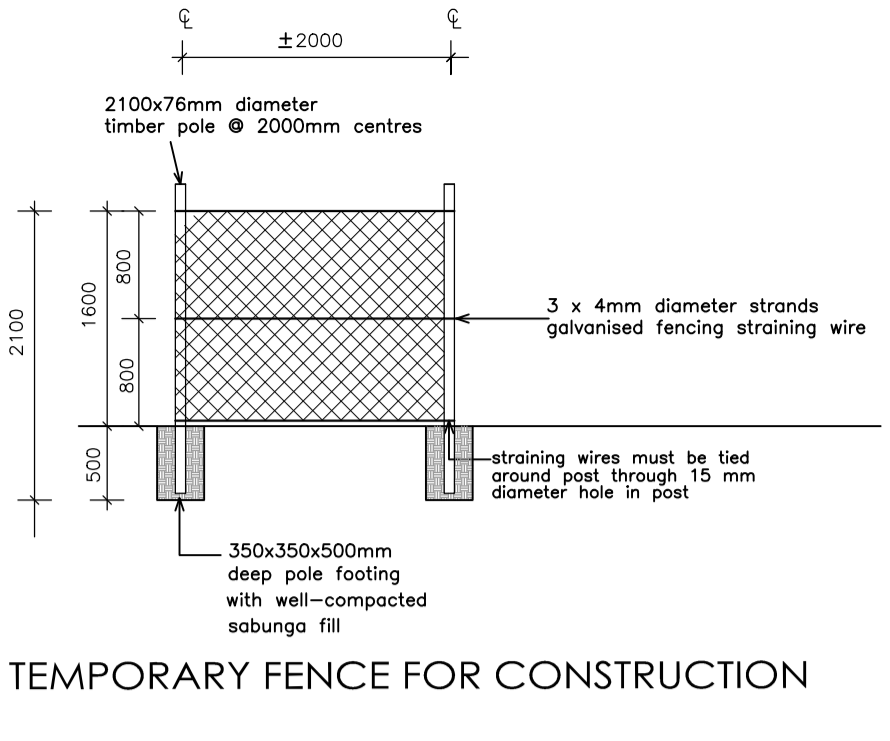
EMIS No: 200400967

EMIS NUMBER	DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	DT/RIV/SAND PT/WD/2.110	-



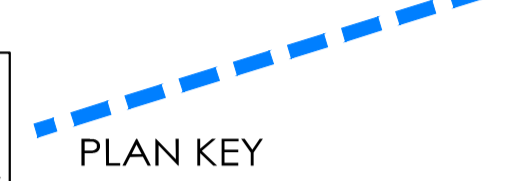


FIRE KEY	
CLASS OF OCCUPANCY	
F1	FIRE EXTINGUISHER
F2	FIRE HOSE REEL
F3	FIRE ESCAPE ROUTE
F4	FIRE EXTINGUISHER SIGN
F5	FIRE HOSE REEL SIGN
F6	FIRE EXIT SIGN
F7	FIRE EXIT SIGN
F8	FIRE EXIT SIGN
F9	FIRE EXIT SIGN
F10	FIRE EXIT SIGN
F11	FIRE EXIT SIGN
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F97	FIRE EXIT SIGN
F98	FIRE EXIT SIGN
F99	FIRE EXIT SIGN
F100	FIRE EXIT SIGN



NOTE:  
- all timber posts and droppers to be creosote treated and are to comply with SABS 457 standards.  
- all timber posts are required to carry the SABS 457 mark of approval.

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- all timber posts and droppers to be creosote treated and are to comply with SABS 457 standards.  
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GRADES	BOYS	GIRLS	TOTAL
PRE GRADE-R	-	-	-
GRADE-R	5	13	18
1	5	10	15
2	20	7	27
3	14	13	27
4	12	14	26
5	9	10	19
6	7	9	16
SCHOOL GRADE TOTALS	72	76	148

GRADES	BOYS	GIRLS	TOTAL
PRE GRADE-R	-	-	-
GRADE-R	6	6	12
1	5	8	13
2	8	11	19
3	16	9	25
4	8	11	19
5	9	12	21
6	7	9	16
SCHOOL GRADE TOTALS	67	73	140

GRADES	BOYS	GIRLS	TOTAL
PRE GRADE-R	-	-	-
GRADE-R	6	6	12
1	5	8	13
2	8	11	19
3	16	9	25
4	8	11	19
5	9	12	21
6	7	9	16
SCHOOL GRADE TOTALS	67	73	140

94 ENROLMENT - GRADE R(13) = 81  
Enrolment Range > 65 therefore LARGE Micro School as per Annexure F

Grade R - 13 THEREFORE 1 GRADE R

KIT PART No.	DESCRIPTION	QUANTITY	TOTAL CLASSROOMS	AREA M <sup>2</sup>
Micro Grade R	Combined Admin and Nutrition Centre	1	1	
Combined Micro Admin and Nutrition Centre	Combined Admin and Nutrition Centre	1	n/a	
Micro Multi-purpose Classroom and Storage	Multi-purpose Classroom	1	1	
Micro Computer Lab/Science room	Computer Lab/Science Classroom	1	2	
Micro Classrooms with Store room	4 Classrooms	4	4	
TOTAL			8	

NOTES:  
1. DRAWING NOT TO BE SCALED. FIGURED DIMENSIONS TO BE USED.  
2. ALL LEVELS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.  
3. CONTRACTOR TO REPORT ANY DISCREPANCIES REGARDING DIMENSIONS, LEVELS & NOTES TO THE ARCHITECT BEFORE CONSTRUCTION COMMENCES.  
4. ALL STRUCTURAL WORK TO ENGINEERS DETAIL, SPECIFICATION & CONFIRMATION.  
5. ALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

NO.	DATE	DESCRIPTION	Rev. By
B	2018/10/31	1. Fence line move further back from access road. 2. Access road removed.	S.J

PRINCIPAL AGENT	Ngonyama Okpanum & Associates
QUANTITY SURVEYORS	Mokate Monk & Du Plessis
ARCHITECTS	Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS	CSE Consulting
ELECTRICAL ENGINEERS	Richard Nzuza & Associates



NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-	-	A1
DRAWN	-	-	SCALE 1:250
VERIFIED	-	-	STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
VALIDATED	-	-	I

EASTERN CAPE SCHOOL BUILDING PROGRAMME



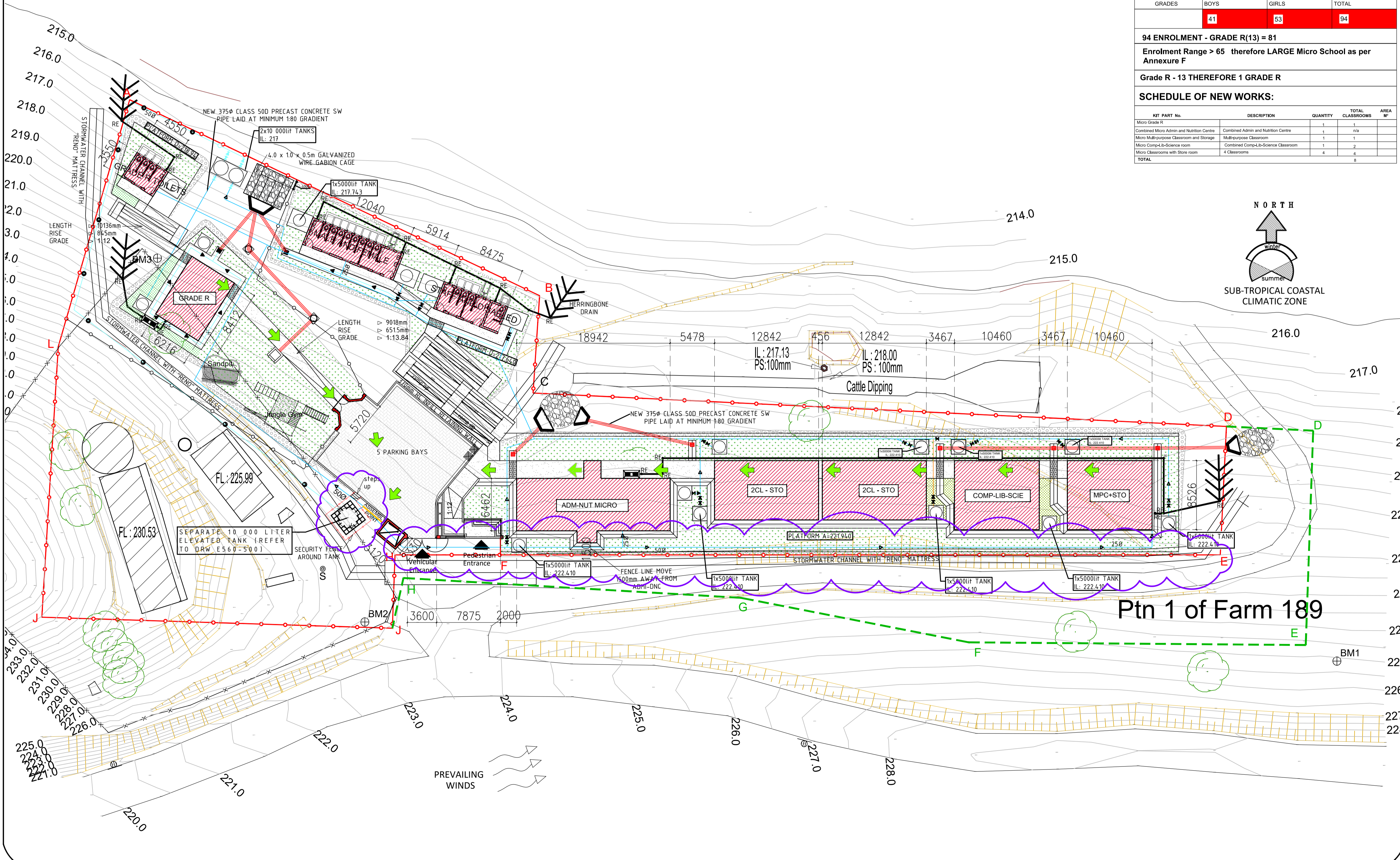
DEPARTMENT OF INDEPENDENT DEVELOPMENT EDUCATION TRUST

PROJECT  
**IDT SCHOOL BUILDING PROGRAMME**

DRAWING TITLE  
**RIVERVIEW SDP - Includes Access Road**

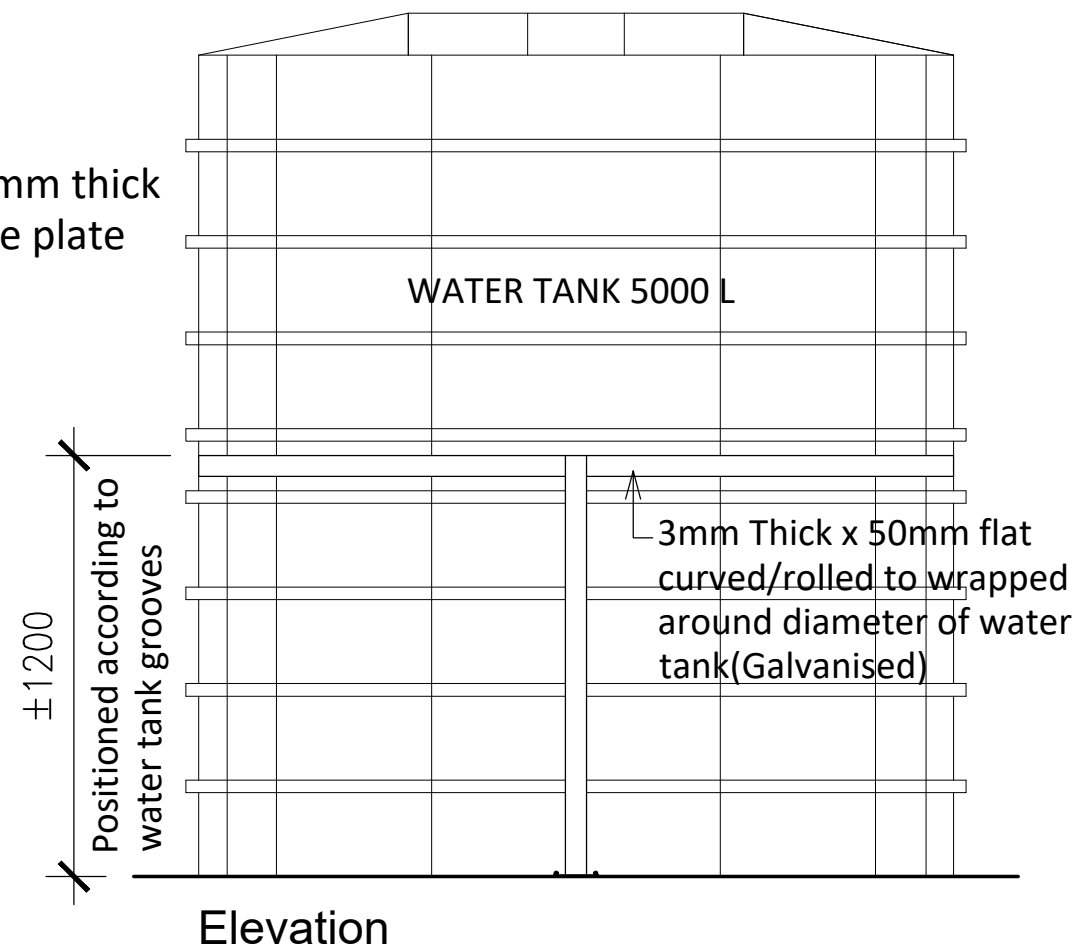
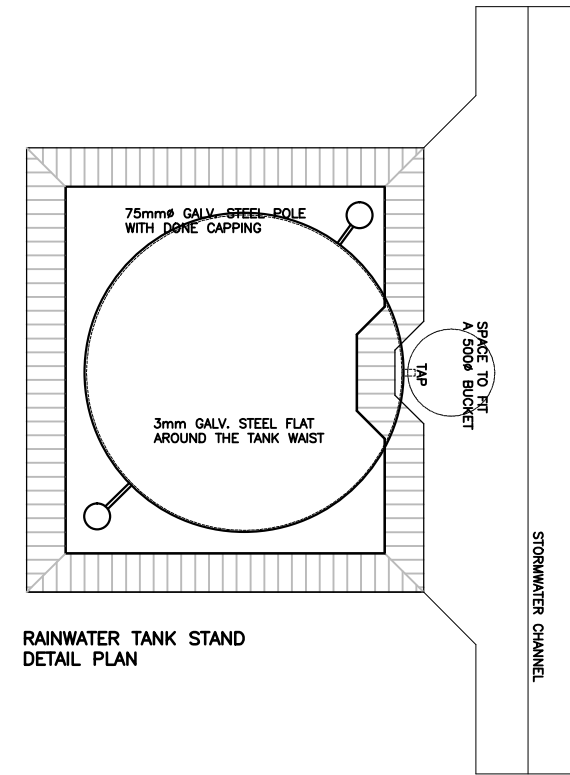
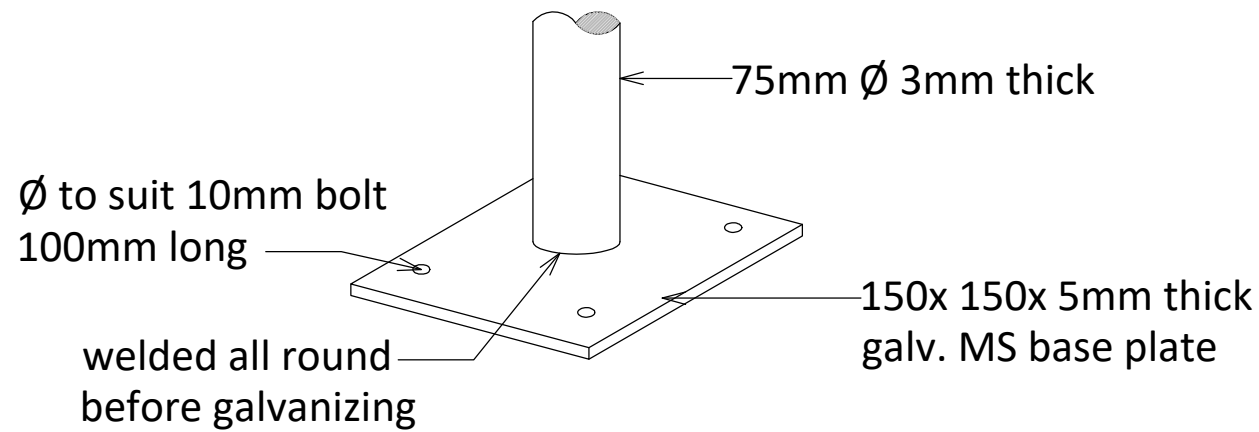
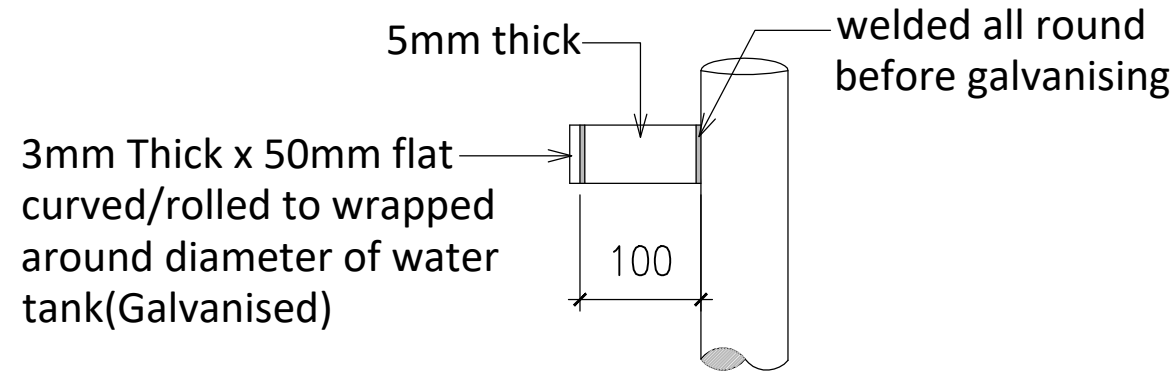
EMIS No: 200400967

DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RIV/SP/2.101
		B





**NOTE:**  
ALL WELDING DONE  
BEFORE SENT FOR GALVANISING



NOTES:  
1. DRAWING NOT TO BE SCALED. FIGURED DIMENSIONS TO BE USED.  
2. ALL LEVELS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.  
3. CONTRACTOR TO REPORT ANY DISCREPANCIES REGARDING DIMENSIONS, LEVELS & NOTES TO THE ARCHITECT BEFORE CONSTRUCTION COMMENCES.  
4. ALL STRUCTURAL WORK TO ENGINEER'S DETAIL, SPECIFICATION & APPROVAL.  
5. ALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

REVISIONS		
NO.	DATE	DESCRIPTION
0		ISSUED FOR

CONSULTANTS	
PRINCIPAL AGENT	Ngonyama Okpanum & Associates
QUANTITY SURVEYORS	Mokate Monk & Du Plessis
ARCHITECTS	Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS	CSE Consulting
ELECTRICAL ENGINEERS	Richard Nzuza & Associates

**Ngonyama & Associates (Pty) Ltd**  
ARCHITECTS | PROJECT MANAGERS  
URBAN & INTERIOR DESIGNERS

NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-		A1
DRAWN	-		SCALE 1:100 1:50
VERIFIED	-		STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
VALIDATED	-		

**EASTERN CAPE SCHOOL BUILDING PROGRAMME**

basic education  
Department of Basic Education  
REPUBLIC OF SOUTH AFRICA

**idT**  
Independent Development Trust

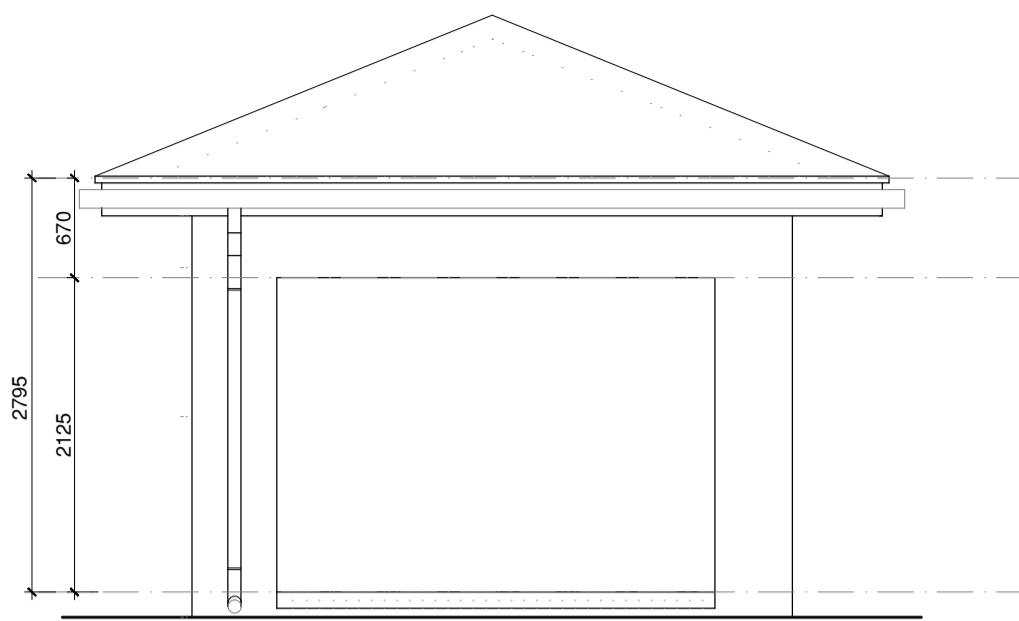
DEPARTMENT OF EDUCATION  
INDEPENDENT DEVELOPMENT TRUST

PROJECT  
**IDT SCHOOL BUILDING PROGRAMME**

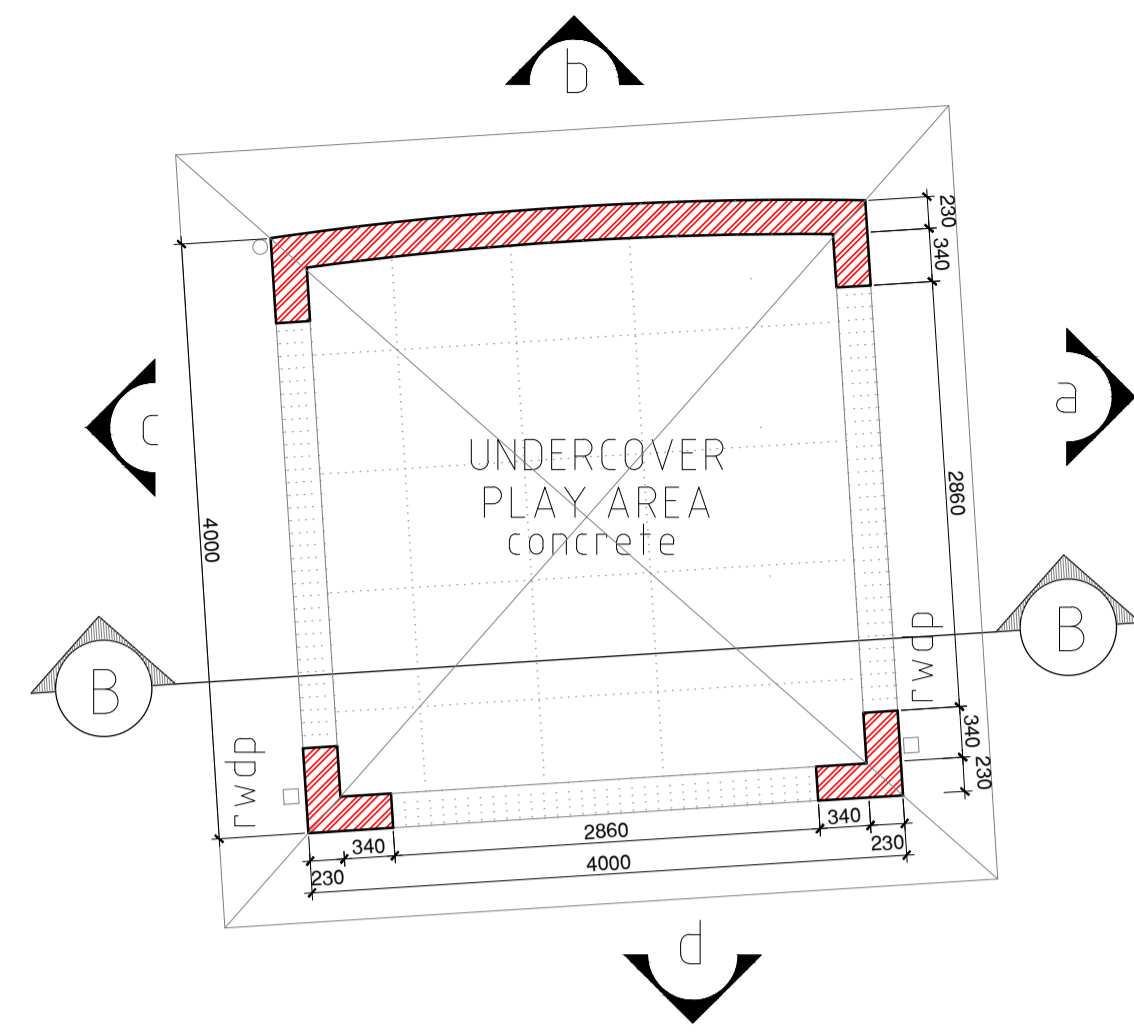
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**RIVERVIEW PROPOSED TYPICAL TANK POST DETAIL**

EMIS No: 200400967

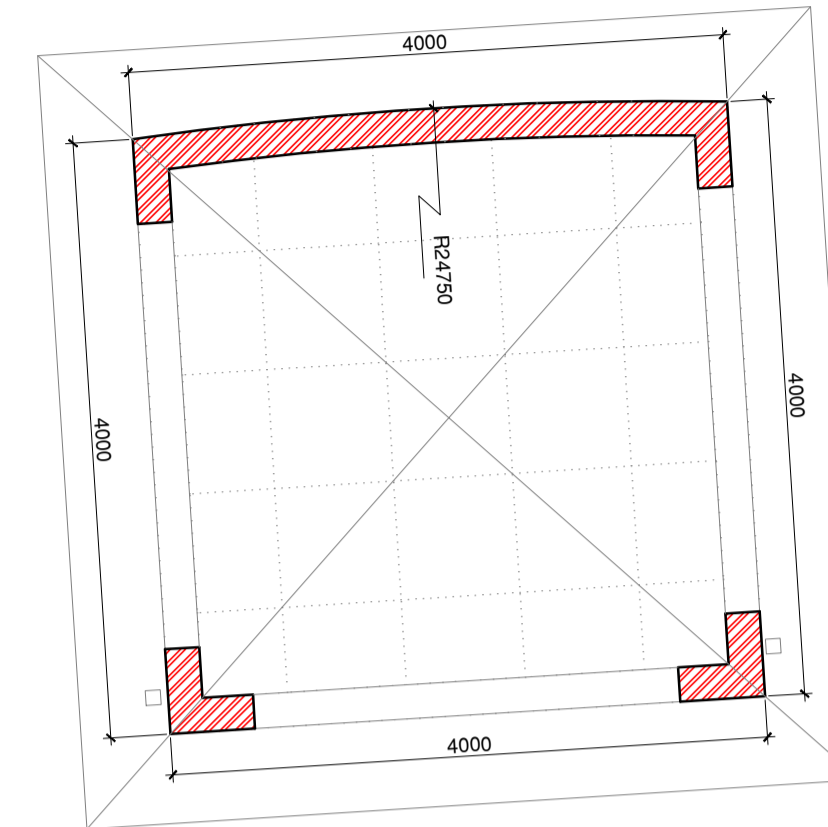
DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RIV/DET. 2 /WD/4.102
		-



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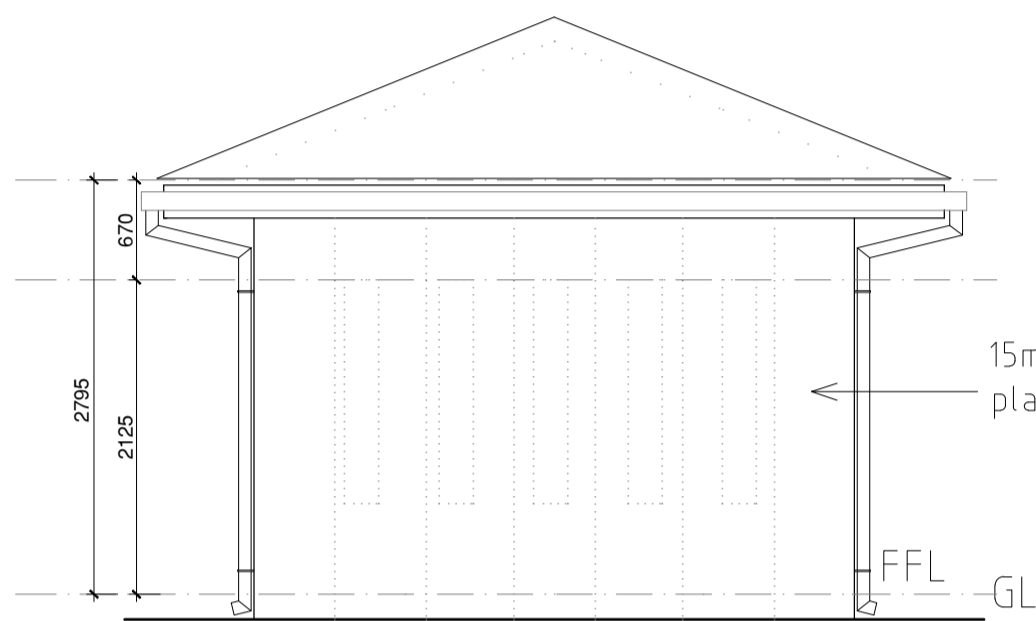


PLANS  
scale 1:50

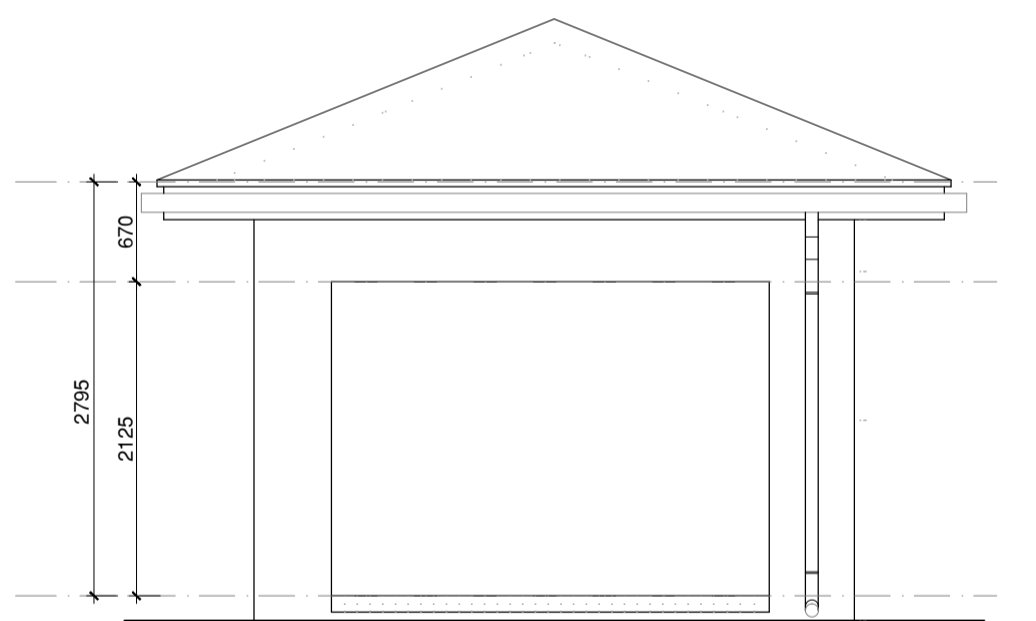


ALL CLASSROOM BUILDINGS WITH A NORTH-SOUTH ORIENTATION ARE TO BE TREATED DIFFERENTLY WITH EXTENDED EAVES. THIS IS SHOWN IN THE DETAILED DESIGN DRAWINGS

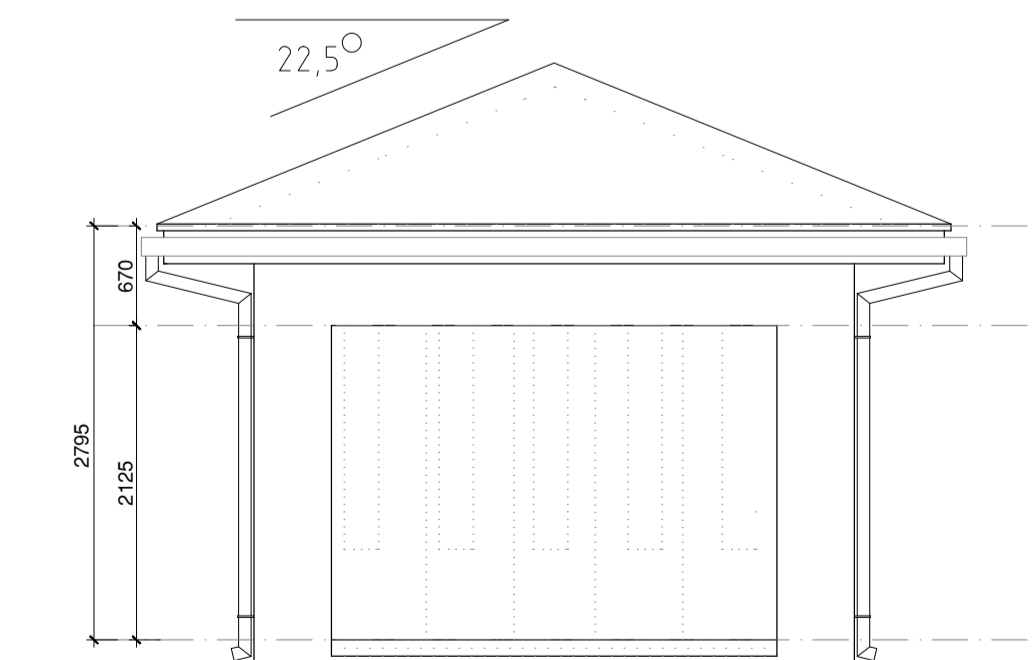
EAST / WEST WINDOWS: LIGHTING/SHADING TO FUTURE DETAIL.



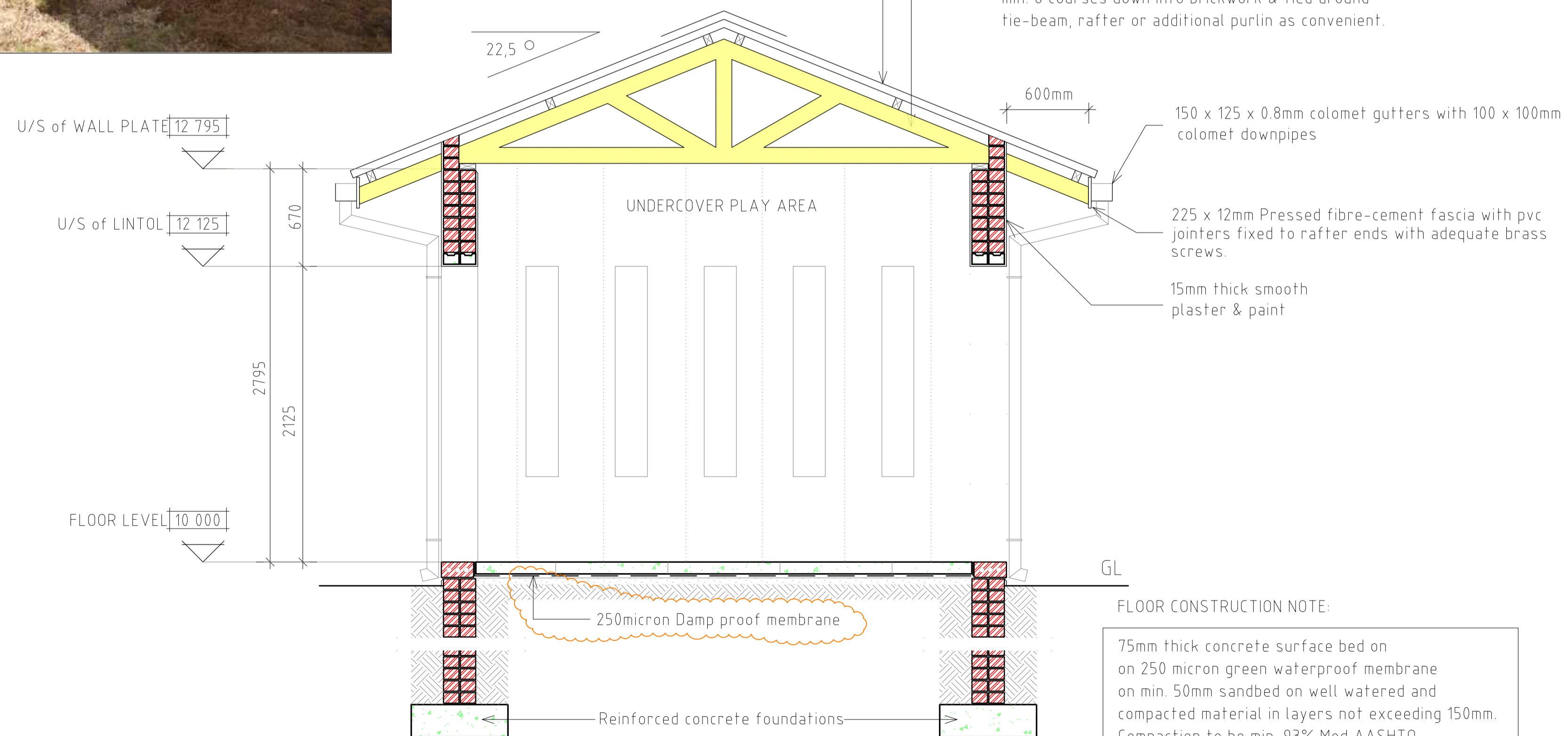
ELEVATION b  
scale 1:50



ELEVATION c  
scale 1:50



ELEVATION d  
scale 1:50



SECTION B-B scale 1:25

FLOOR CONSTRUCTION NOTE:

75mm thick concrete surface bed on  
on 250 micron green waterproof membrane  
on min. 50mm sandbed on well watered and  
compacted material in layers not exceeding 150mm.  
Compaction to be min. 93% Mod AASHTO.

NOTES:

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4. ALL STRUCTURAL WORK TO ENGINEER'S DETAIL, SPECIFICATION & CONFIRMATION.
5. ALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

REVISIONS

NO.	DATE	DESCRIPTION
A	01MAY2019	1. Dym made more visible.

CONSULTANTS

PRINCIPAL AGENT
Ngonyama Okpanum & Associates
QUANTITY SURVEYORS
Mokate Monk & Du Plessis
ARCHITECTS
Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS
CSE Consulting
ELECTRICAL ENGINEERS
Richard Nzuzo & Associates



13 LUKORHO | BELLEVILLE | EAST LONDON | 027 | 07494743389 | 027 | 07494743389 | 027 | 07494743389  
EAST LONDON | JOHANNESBURG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | MAMABATHO | NELSPOORT | POLKOVANE (NIGERIA)

NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-	-	A1
DRAWN	-	-	SCALE
VERIFIED	-	-	NTS
VALIDATED	-	-	STATUS LEGEND
			I = INFORMATION
			T = TENDER
			C = CONSTRUCTION
			AB = AS BUILT

EASTERN CAPE SCHOOL BUILDING PROGRAMME



DEPARTMENT OF INDEPENDENT DEVELOPMENT EDUCATION TRUST

PROJECT

IDT SCHOOL BUILDING PROGRAMME

DRAWING TITLE

UNDERCOVER PLAY AREA DETAILS

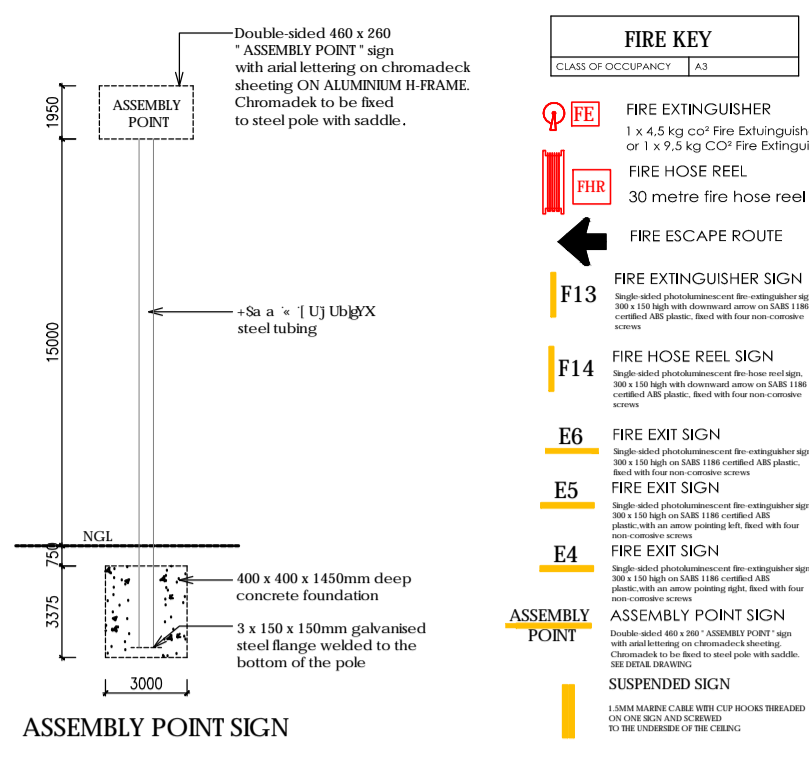
EMIS No: 200400967

EMIS NUMBER	DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RIV/UND.PL/WD/2.111	A

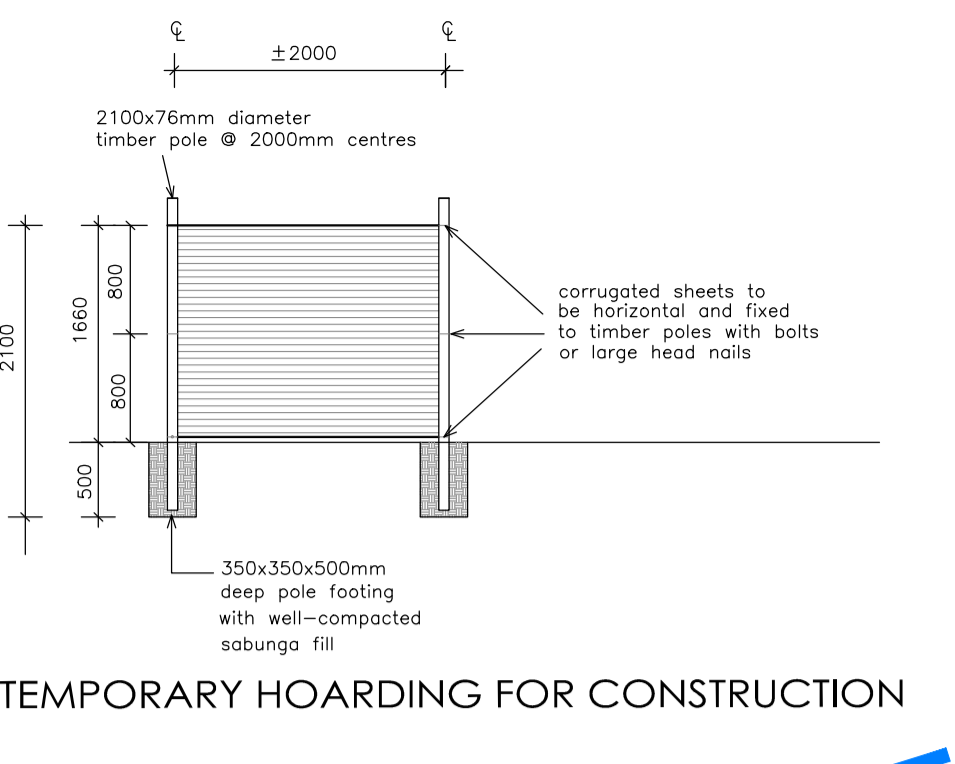
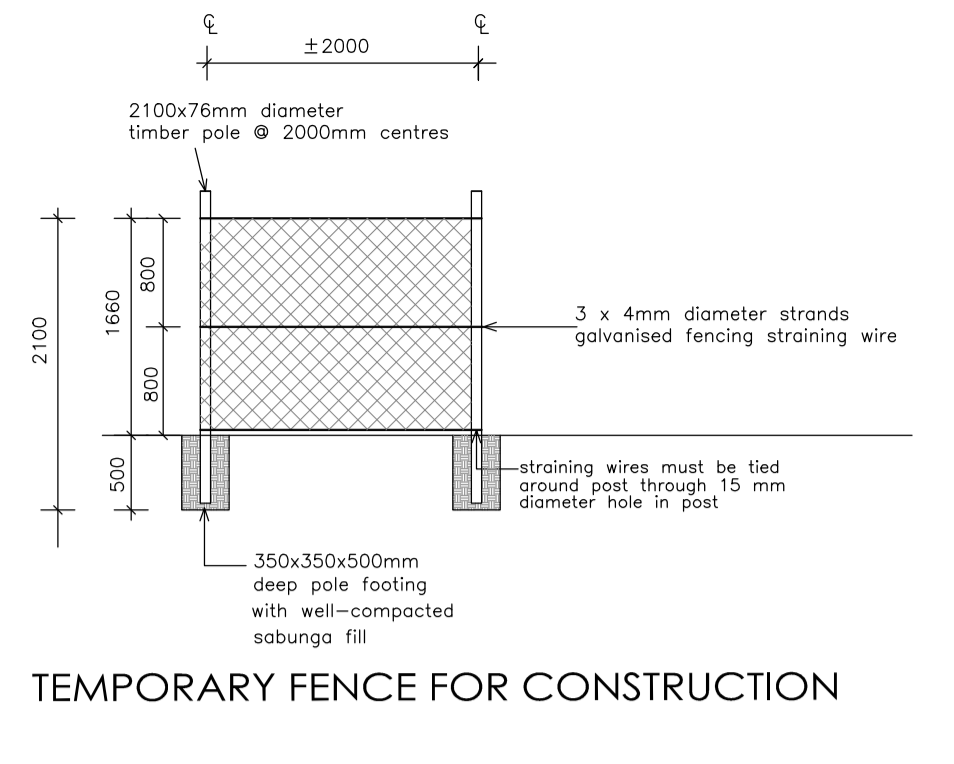








FIRE KEY	
CLASS OF OCCUPANCY: 1-2	
	FIRE EXTINGUISHER 1 x 2.5kg CO2 fire extinguisher or 1 x 9.5kg CO2 fire extinguisher
	FIRE HOSE REEL 30 metre fire hose reel
	FIRE ESCAPE ROUTE
	FIRE EXTINGUISHER SIGN 1 x 450mm x 150mm
	FIRE HOSE REEL SIGN 1 x 450mm x 150mm
	FIRE EXIT SIGN 1 x 450mm x 150mm
	FIRE EXIT SIGN 1 x 450mm x 150mm
	FIRE EXIT SIGN 1 x 450mm x 150mm
	ASSEMBLY POINT SIGN 1 x 450mm x 150mm
	SUSPENDED SIGN



NOTE:  
- all timber posts and droppers to be creosote treated and are to comply with SABS 457 standards.  
- all timber posts are required to carry the SABS 457 mark of approval.

NOTE:  
- all timber posts and droppers to be creosote treated and are to comply with SABS 457 standards.  
- all timber posts are required to carry the SABS 457 mark of approval.

PLAN KEY

PLAN KEY

GRADES	BOYS	GIRLS	TOTAL
PRE GRADE-R	-	-	-
GRADE-R	5	13	18
1	5	10	15
2	20	7	27
3	14	13	27
4	12	14	26
5	9	10	19
6	7	9	16
SCHOOL GRADE TOTALS	72	76	148

GRADES	BOYS	GIRLS	TOTAL
PRE GRADE-R	-	-	-
GRADE-R	6	6	12
1	5	8	13
2	8	11	19
3	16	9	25
4	8	11	19
5	9	12	21
6	7	9	16
SCHOOL GRADE TOTALS	67	73	140

GRADES	BOYS	GIRLS	TOTAL
PRE GRADE-R	-	-	-
GRADE-R	41	53	94
SCHOOL GRADE TOTALS	41	53	94

94 ENROLMENT - GRADE R(13) = 81  
Enrolment Range > 65 therefore LARGE Micro School as per Annexure F

Grade R - 13 THEREFORE 1 GRADE R

KIT PART No.	DESCRIPTION	QUANTITY	TOTAL CLASSROOMS	AREA M <sup>2</sup>
Micro Grade R	Combined Micro Admin and Nutrition Centre	1	1	708
Micro Multi-purpose Classroom and Storage	Multi-purpose Classroom	1	1	11
Micro Comp-Lib-Science room	Combined Comp-Lib-Science Classroom	1	2	2
Micro Classrooms with Store room	4 Classrooms	4	4	4
TOTAL			8	

NOTES:  
1. DRAWING NOT TO BE SCALED. FIGURED DIMENSIONS TO BE USED.  
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4. ALL STRUCTURAL WORK TO ENGINEER'S DETAIL, SPECIFICATION & CONFIRMATION.  
5. SALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

NO.	DATE	DESCRIPTION	Rev. By
B	2018/10/31	1. Fence line move further back from access road.	S.J
C	2018/03/12	2. Access road removed. 1. Water tanks quantity and positions changed.	

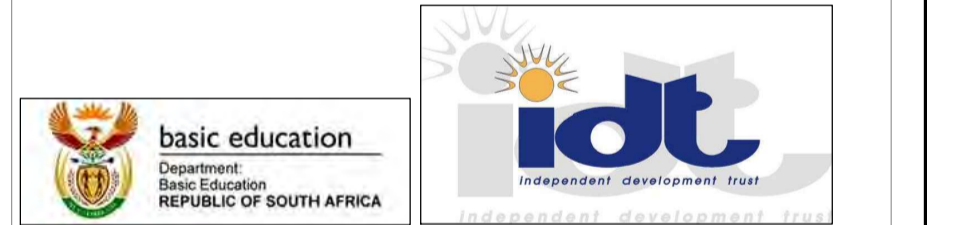


PRINCIPAL AGENT	Ngonyama Okpanum & Associates
QUANTITY SURVEYORS	Mokate Monk & Du Plessis
ARCHITECTS	Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS	CSE Consulting
ELECTRICAL ENGINEERS	Richard Nzuzza & Associates



NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-	-	A1
DRAWN	-	-	SCALE 1: 250
VERIFIED	-	-	STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
VALIDATED	-	-	

EASTERN CAPE SCHOOL BUILDING PROGRAMME



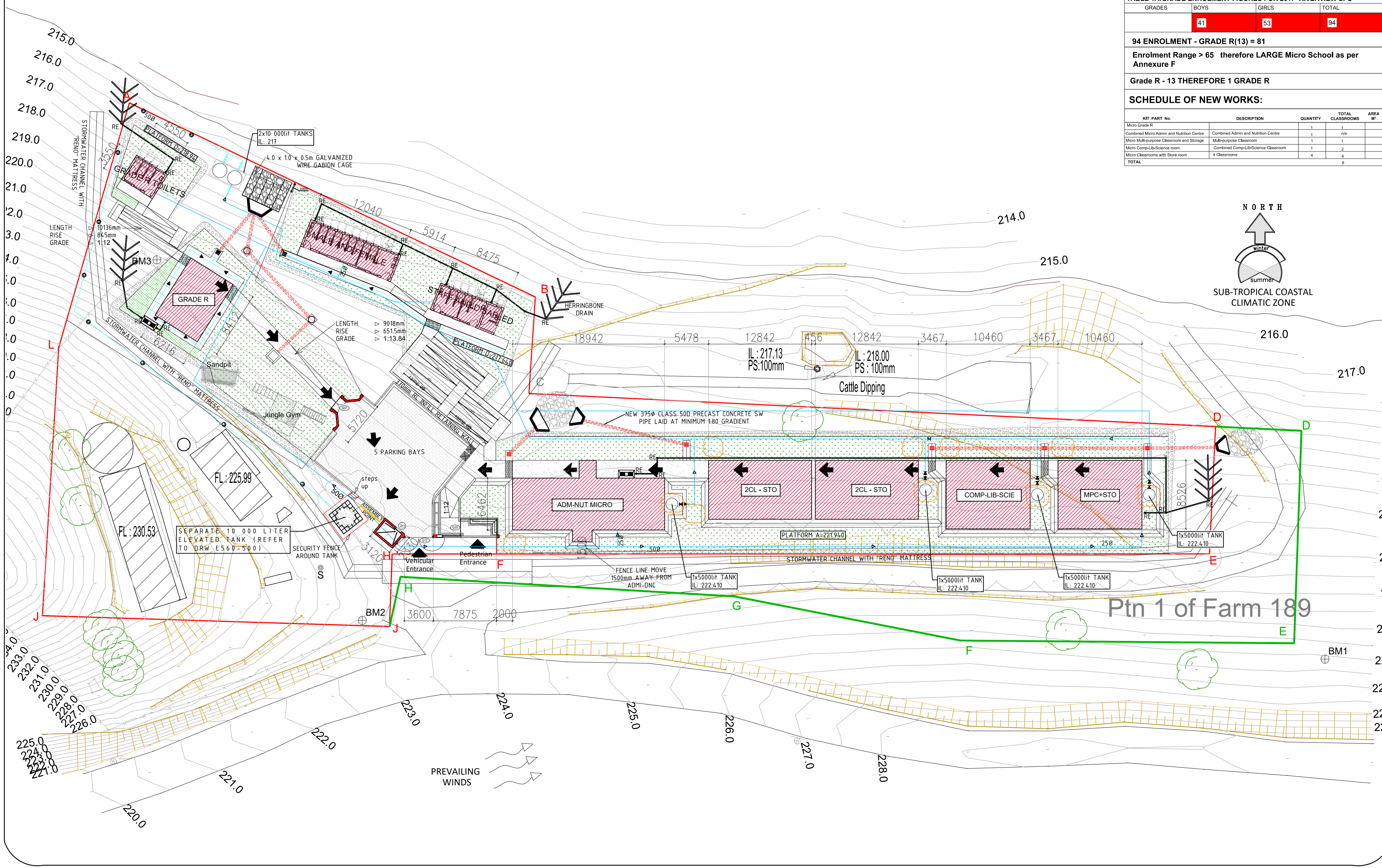
DEPARTMENT OF EDUCATION INDEPENDENT DEVELOPMENT TRUST

PROJECT  
**IDT SCHOOL BUILDING PROGRAMME**

DRAWING TITLE  
**RIVERVIEW SDP - Includes Access Road**

EMIS No: 200400967

DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RIV/SP/2.101
		C





- NOTES:
- DRAWING NOT TO BE SCALED, FIGURED DIMENSIONS TO BE USED.
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  - CONTRACTOR TO REPORT ANY DISCREPANCIES REGARDING DIMENSIONS, LEVELS & NOTES TO THE ARCHITECT BEFORE CONSTRUCTION COMMENCES.
  - ALL STRUCTURAL WORK TO ENGINEER'S DETAIL, SPECIFICATION & CORROSION PROTECTION.
  - ALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

REVISIONS		
NO.	DATE	DESCRIPTION
A	15/NOV/2018	1. All windows changed to aluminum windows.
B	08/FEB/2019	1. Gate G05 added X2.
C	01/MARCH/2019	1. Firewalls added & roof truss configuration changed.



**FOR CONSTRUCTION**

**CONSULTANTS**

PRINCIPAL AGENT	<b>Ngonyama Okpanum &amp; Associates</b>
QUANTITY SURVEYORS	<b>Mokate Monk &amp; Du Plessis</b>
ARCHITECTS	<b>Ngonyama Okpanum &amp; Associates</b>
STRUCTURAL/CIVIL ENGINEERS	<b>CSE Consulting</b>
ELECTRICAL ENGINEERS	<b>Richard Nzuzza &amp; Associates</b>



11 LUMK RD | SEBORNE | EAST LONDON | 6047 | [info@ngonyama.co.za](mailto:info@ngonyama.co.za) | TEL: +27 (043) 743 9889 | FAX: +27 (043) 743 9888  
 (EAST LONDON | JOHANNESBURG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | MBABATHO | NELSPRUIT | POLKOVANE | NOERINA)

NAME	SIGNATURE	DATE	SHEET SIZE
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DRAWN	-	-	SCALE SCALE 1: 100 1: 50
VERIFIED	-	-	STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
VALIDATED	-	-	

**EASTERN CAPE SCHOOL BUILDING PROGRAMME**



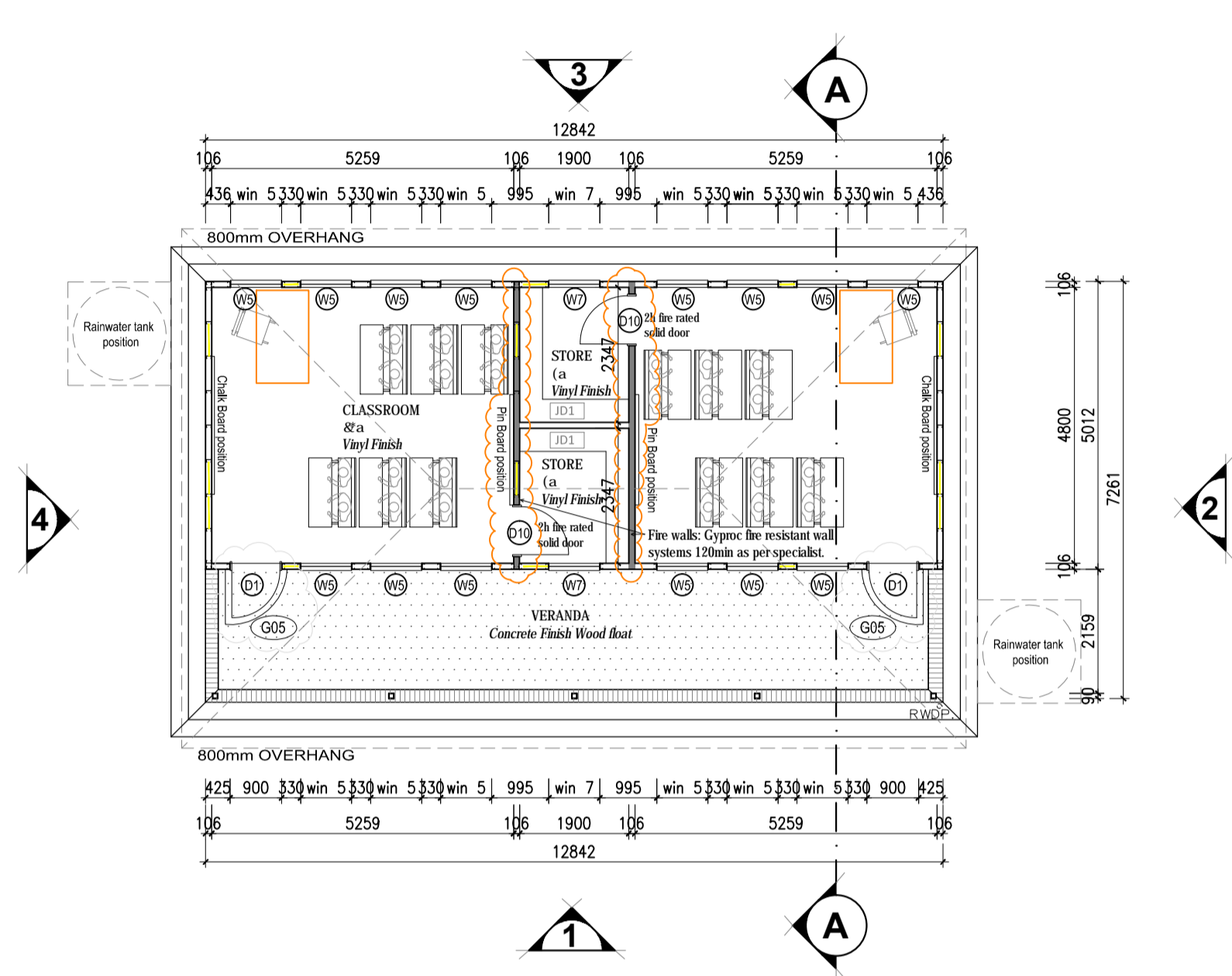
DEPARTMENT OF EDUCATION | INDEPENDENT DEVELOPMENT TRUST

**PROJECT**  
**IDT SCHOOL BUILDING PROGRAMME**

**DRAWING TITLE**  
**RIVERVIEW PROPOSED 2 CLASSROOM WITH STORE, PLAN, SECTION & ELEVATIONS**

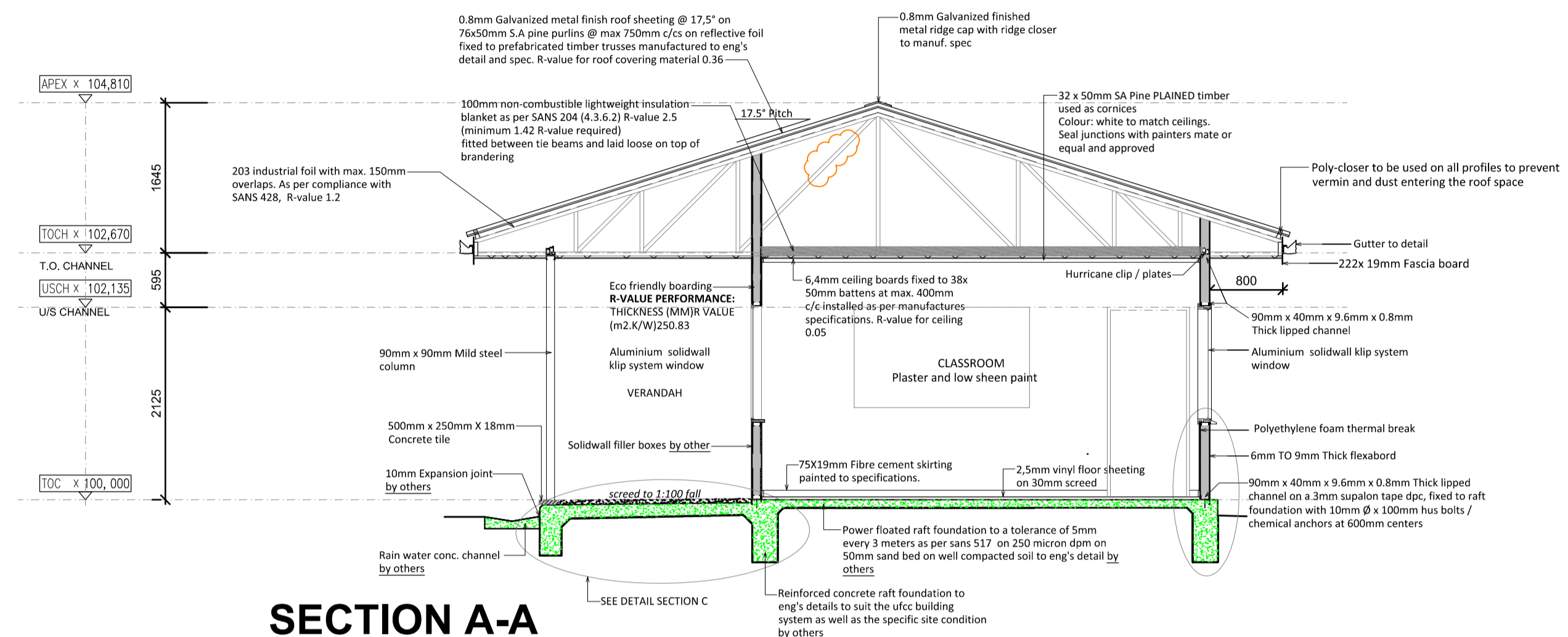
**EMIS No: 200400967**

DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RIV/2CLSTO/WD/2.103
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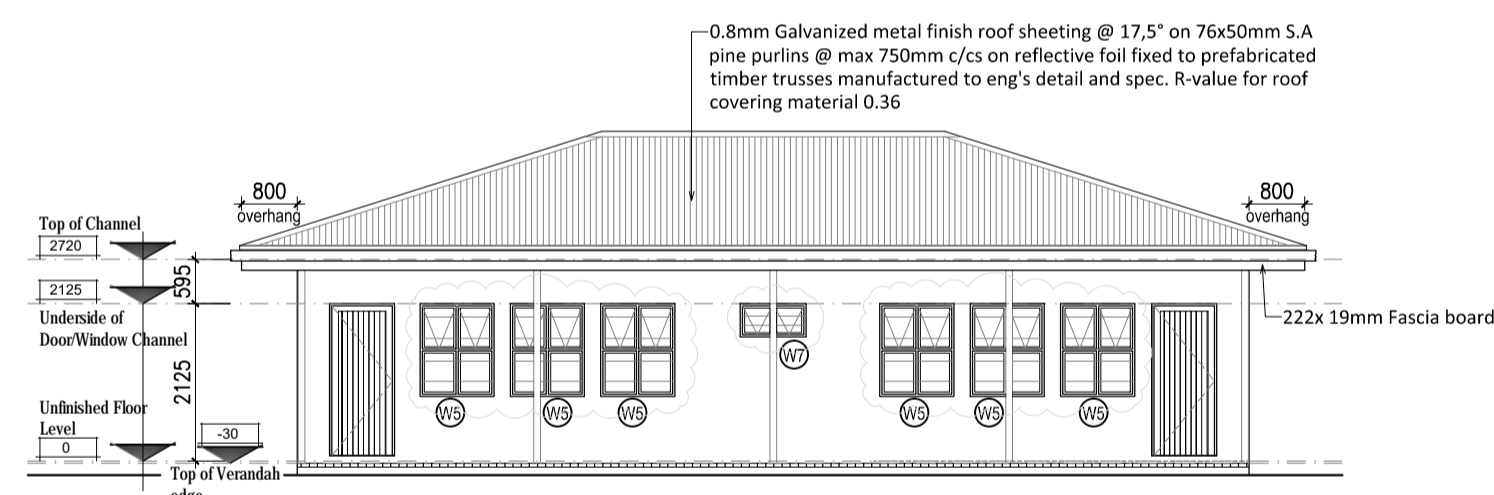


**PLAN - 2 CLASSROOM WITH STORE**  
**60m<sup>2</sup>**  
 scale 1:100

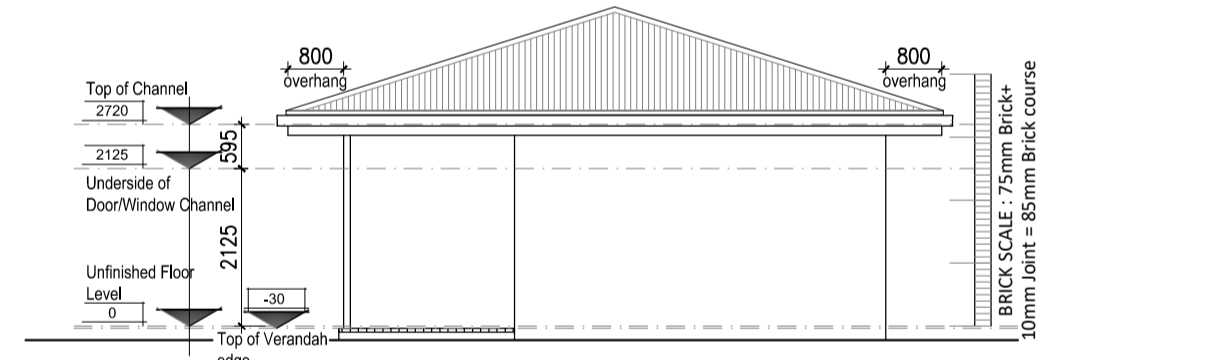
**2CL - STO**



**SECTION A-A**  
 scale 1:50

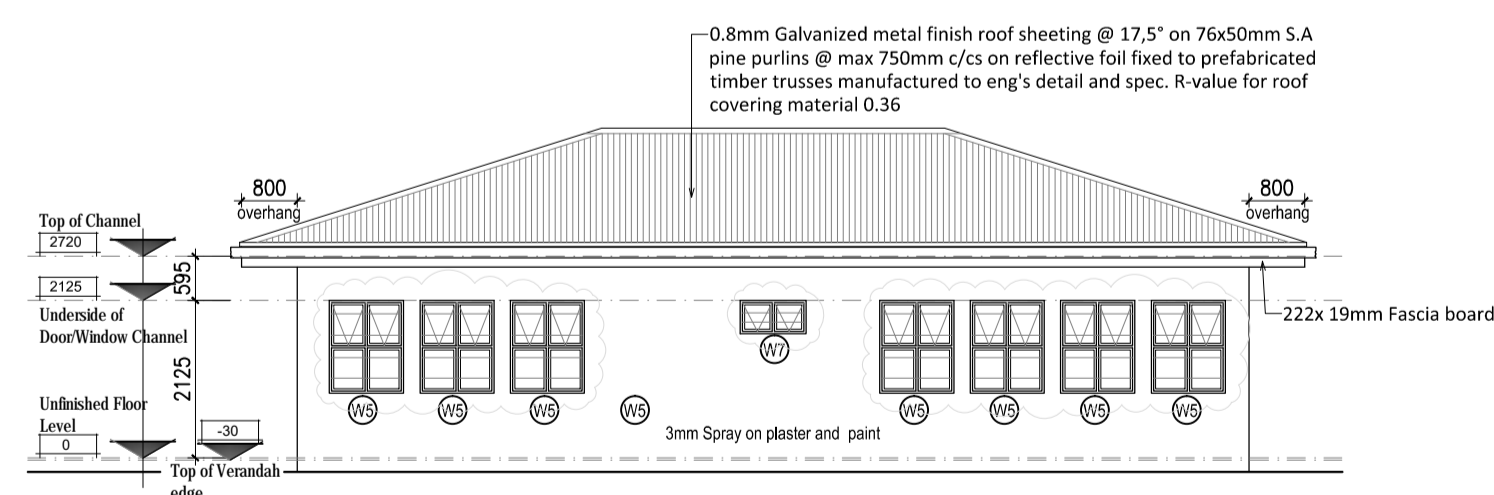


**ELEVATION - 1**  
 scale 1:100

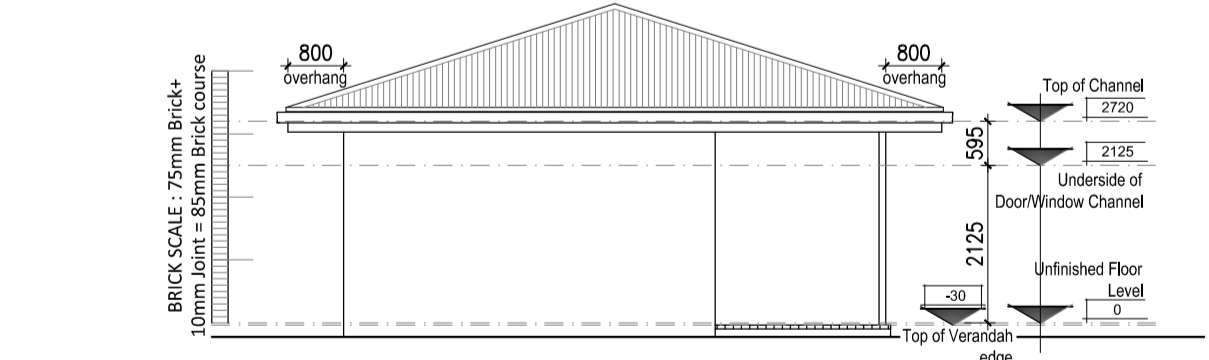


**ELEVATION - 2**

Note: All gutter specifications must be galvanneel sheet iron or corrosion aluminium Zinc-alum. Use heavy duty fixing brackets as we are channeling all the water to tanks and the gutters will be fixed to capacity during storms. No use of PVC gutters allowed as they fail in a big way. The final position of the tanks to be as per site plan. Position on the standard working drawing to be named indicative. Pipe details connection gutters to tanks must be provided on separate sheet if necessary. For suspended pipes where they are crossing over walkways, use mild steel pipes to avoid sagging. Note that all fittings to be fixed properly as per SANS & SANS regulations and good practice systems.



**ELEVATION - 3**  
 scale 1:100



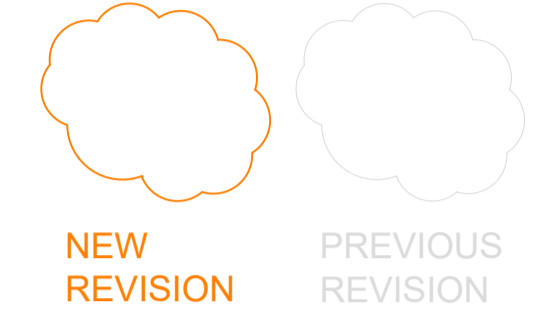
**ELEVATION - 4**



- NOTES:
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  - ALL LEVELS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.
  - CONTRACTOR TO REPORT ANY DISCREPANCIES REGARDING DIMENSIONS, LEVELS & NOTES TO THE ARCHITECT BEFORE CONSTRUCTION COMMENCES.
  - ALL STRUCTURAL WORK TO ENGINEER'S DETAIL, SPECIFICATION & CONFIRMATION.
  - ALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

REVISIONS

NO.	DATE	DESCRIPTION
A	13/NOV/2018	1. All windows changed to aluminium windows.
B	09/FEB/2019	1. Gate G05 & G06 Added.
C	01/MARCH/2019	1. Fire wall added, truss configuration changed



FOR CONSTRUCTION

CONSULTANTS

PRINCIPAL AGENT	Ngonyama Okpanum & Associates
QUANTITY SURVEYORS	Mokate Monk & Du Plessis
ARCHITECTS	Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS	CSE Consulting
ELECTRICAL ENGINEERS	Richard Nzuzza & Associates



11 LILAK RD | SEBORNE | EAST LONDON | 6047 | info@ngonyama.co.za | TEL: +27 (0)43 743 9889 | FAX: +27 (0)43 743 9888  
 (EAST LONDON | JOHANNESBURG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | MAMABATHO | NELSPRUIT | POLOKwane | NQURU)

NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-	-	A1
DRAWN	-	-	SCALE 1: 100 1: 50
VERIFIED	-	-	STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
VALIDATED	-	-	

EASTERN CAPE SCHOOL BUILDING PROGRAMME



DEPARTMENT OF EDUCATION



INDEPENDENT DEVELOPMENT TRUST

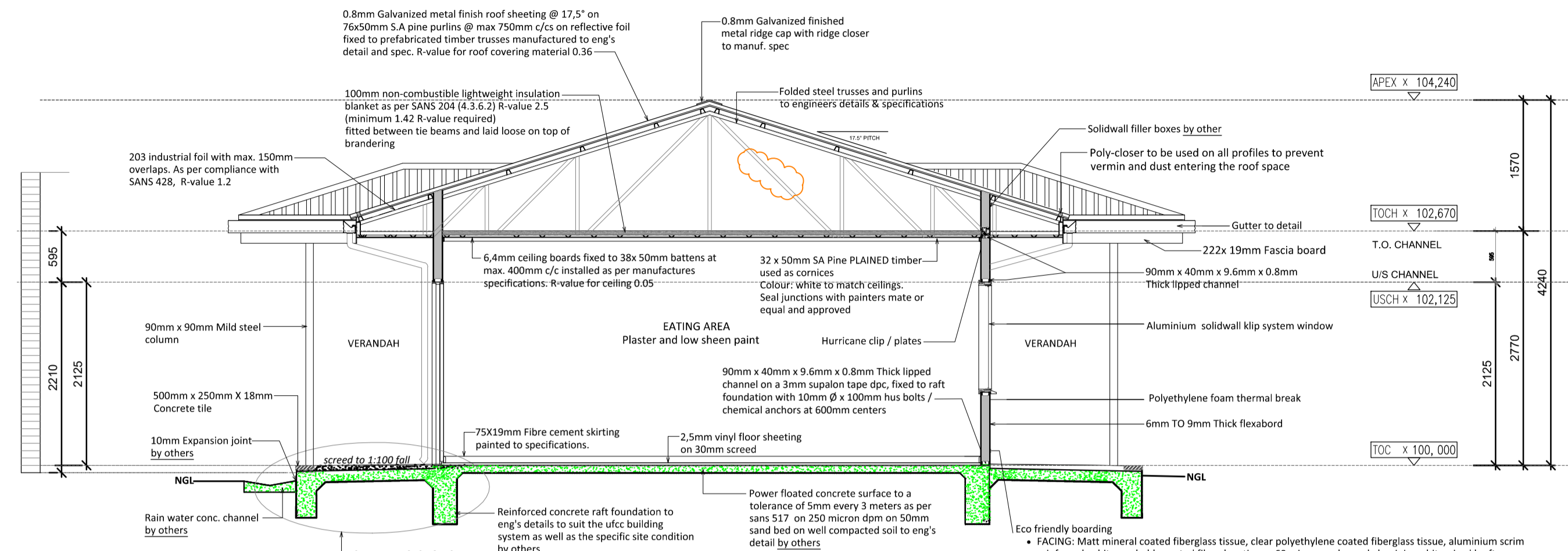
PROJECT

IDT SCHOOL BUILDING PROGRAMME

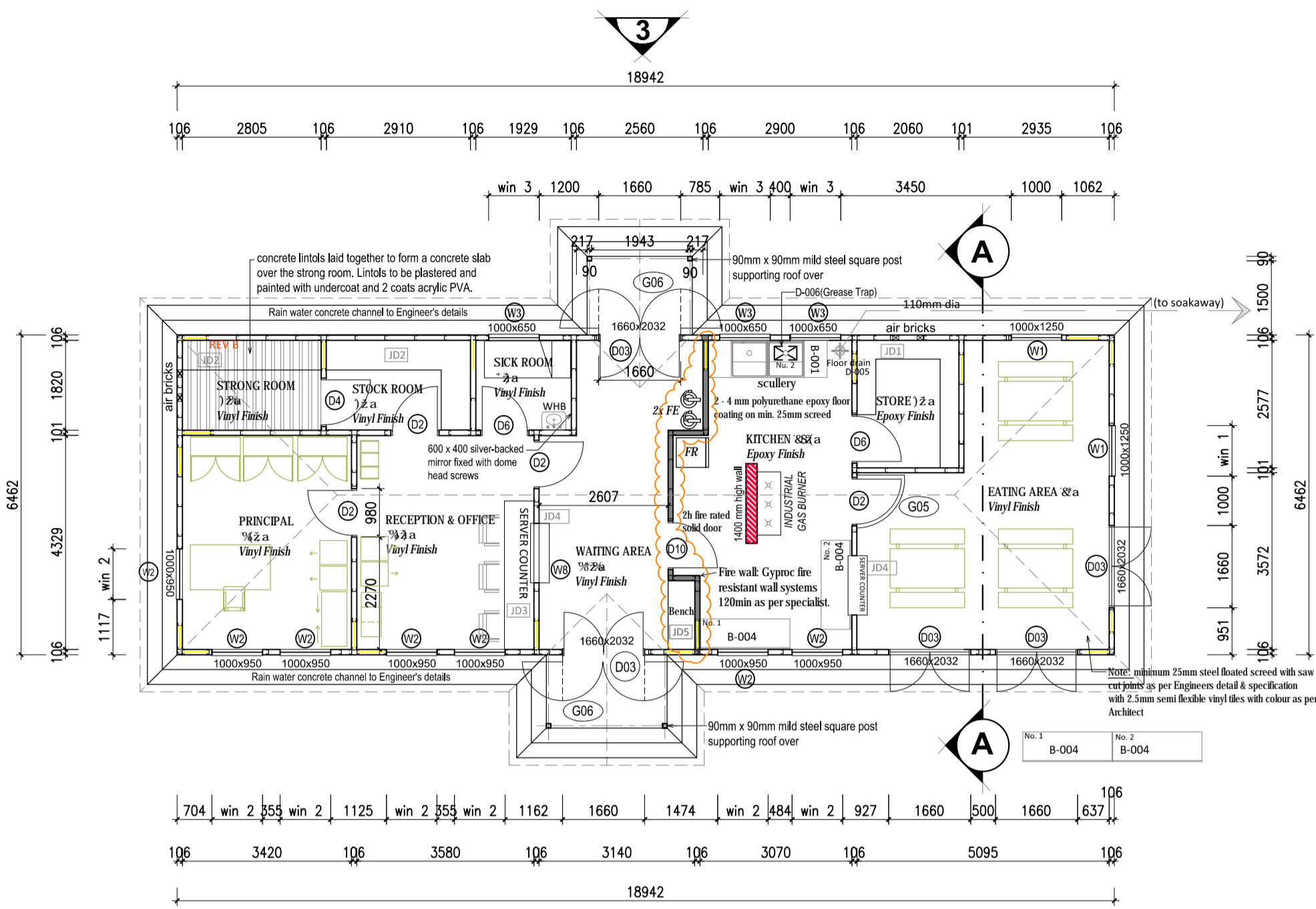
DRAWING TITLE  
RIVERVIEW PROPOSED ADMIN. DMC - MICRO, PLAN, SECTION & ELEVATIONS

EMIS No: 200400967

DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RV/GRDMCMIC/WD/2.101
		C



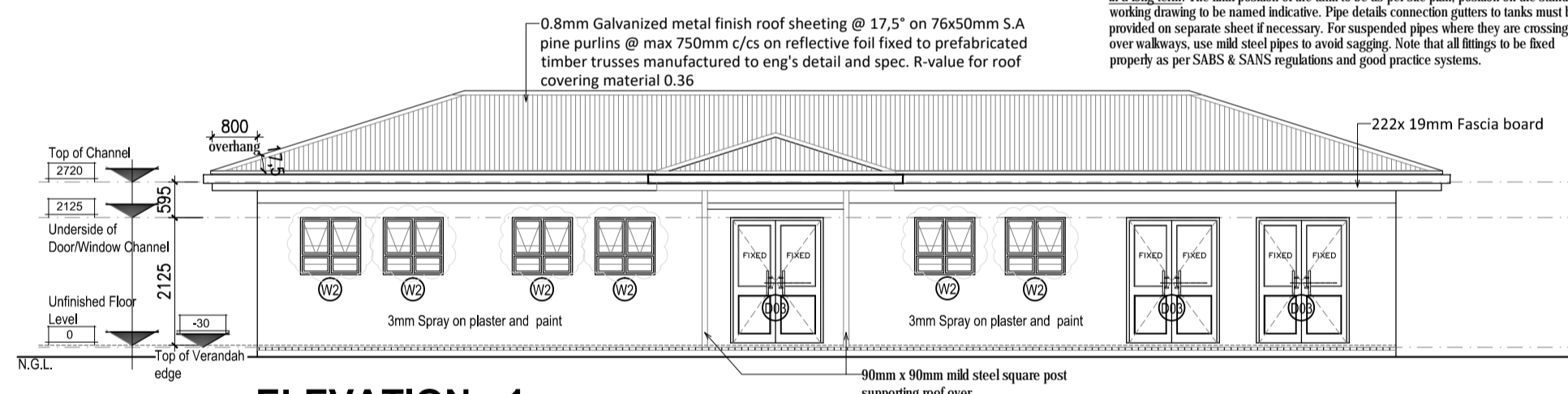
SECTION A-A  
scale 1:50



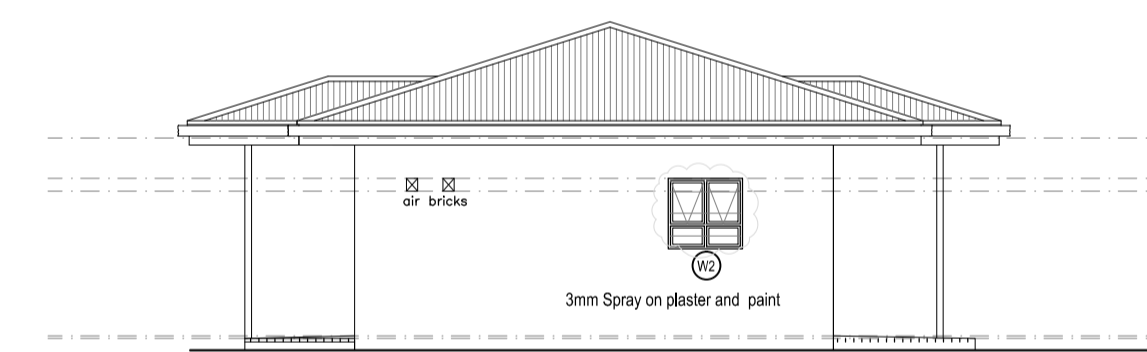
ADM-NUT MICRO

PLAN - ADMINISTRATION AND NUTRITION CENTRE  
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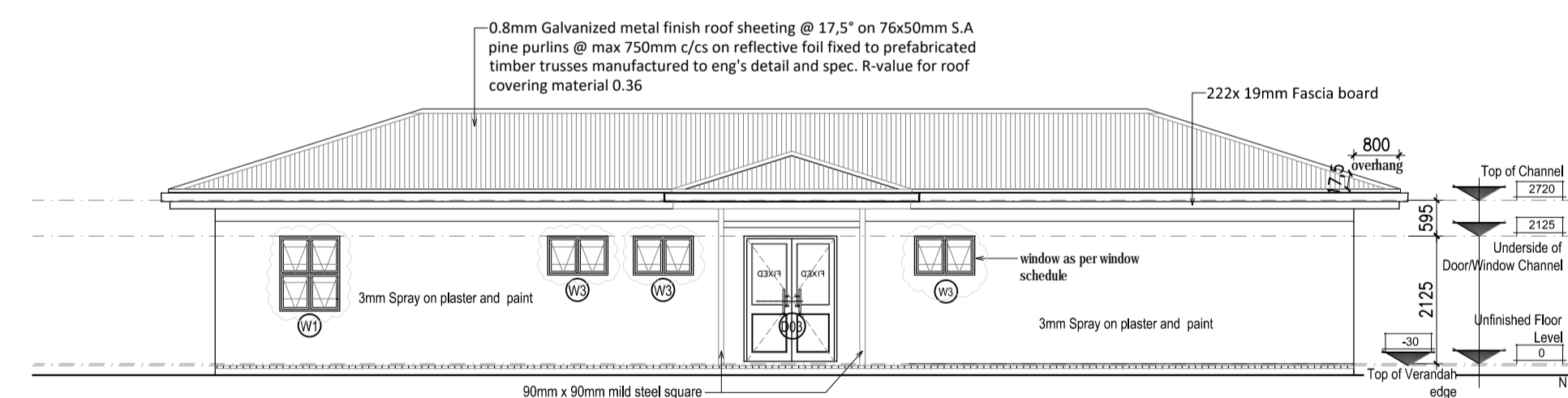
Note: All gutter specifications must be galvanized steel iron or seamless aluminium/zinc alloy. Use heavy duty fixing brackets as we are channeling all the water to tanks and the gutters will be fixed to capacity during storms. No use of PVC gutters allowed as they fail in a long term. The final position of the tank to be as per site plan, position on the standard working drawing to be named indicative. Pipe details connect pipes to tanks must be provided on separate sheet if necessary. For suspended pipes where they are crossing over walkways, use mild steel pipes to avoid sagging. Note that all fittings to be fixed properly as per SABS & SANS regulations and good practice systems.



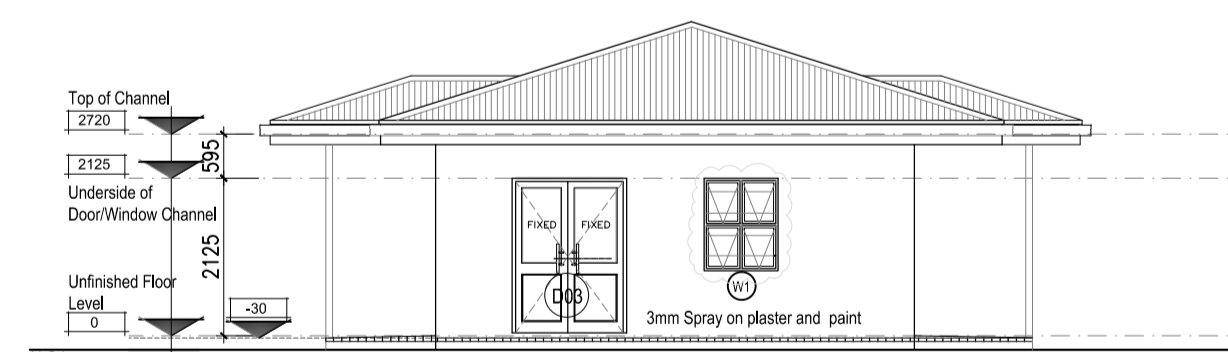
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scale 1:100



ELEVATION - 4  
scale 1:100



ELEVATION - 3  
scale 1:100



ELEVATION - 2  
scale 1:100

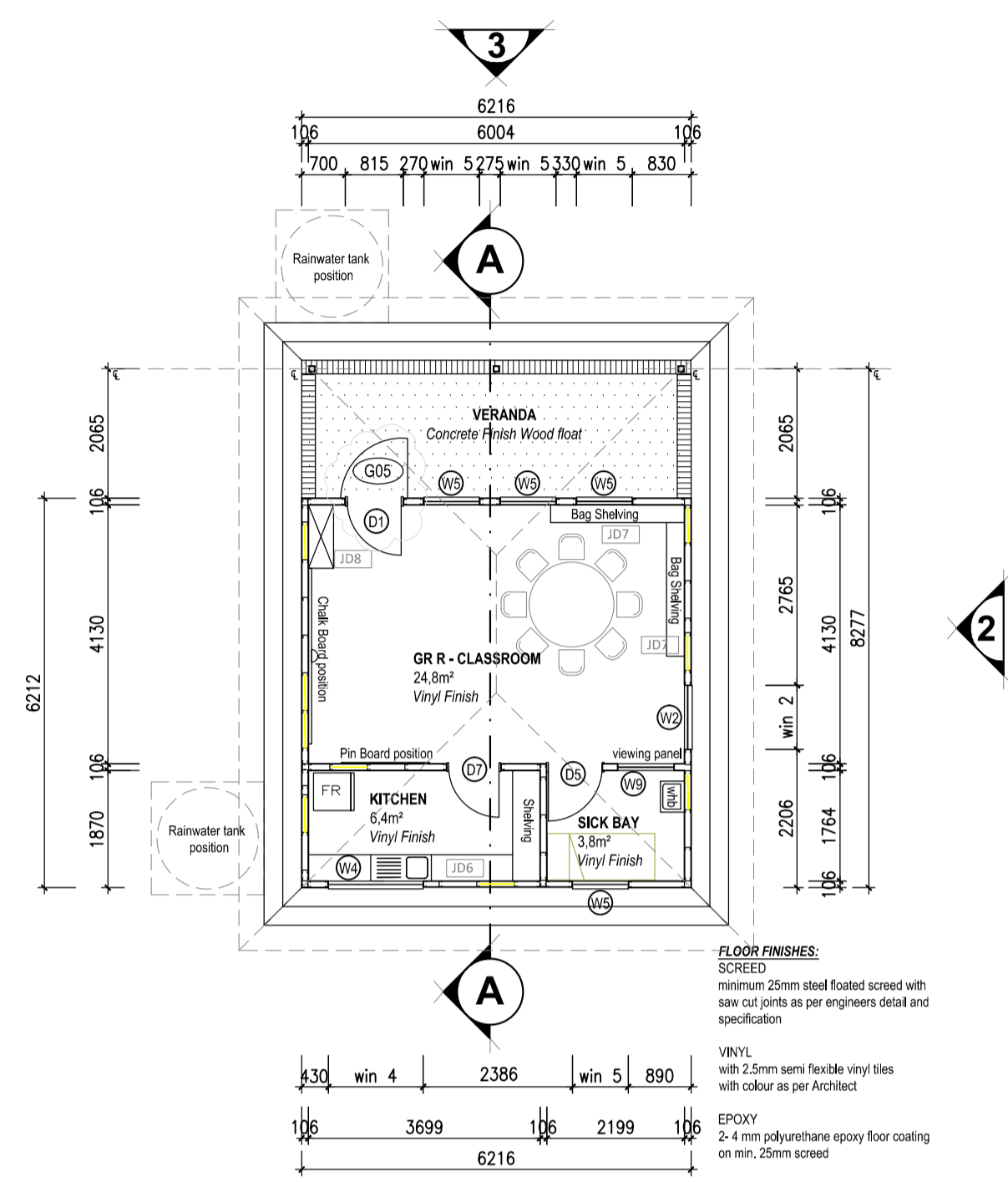




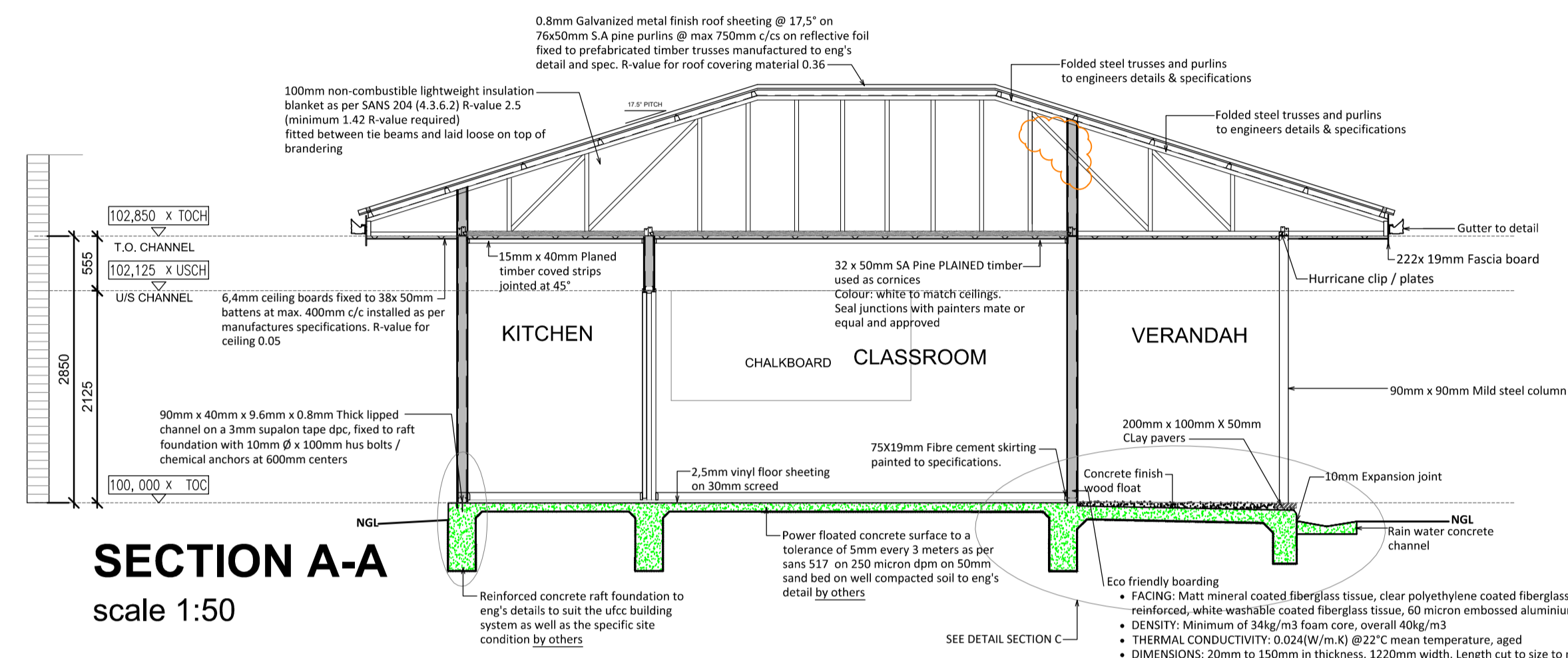




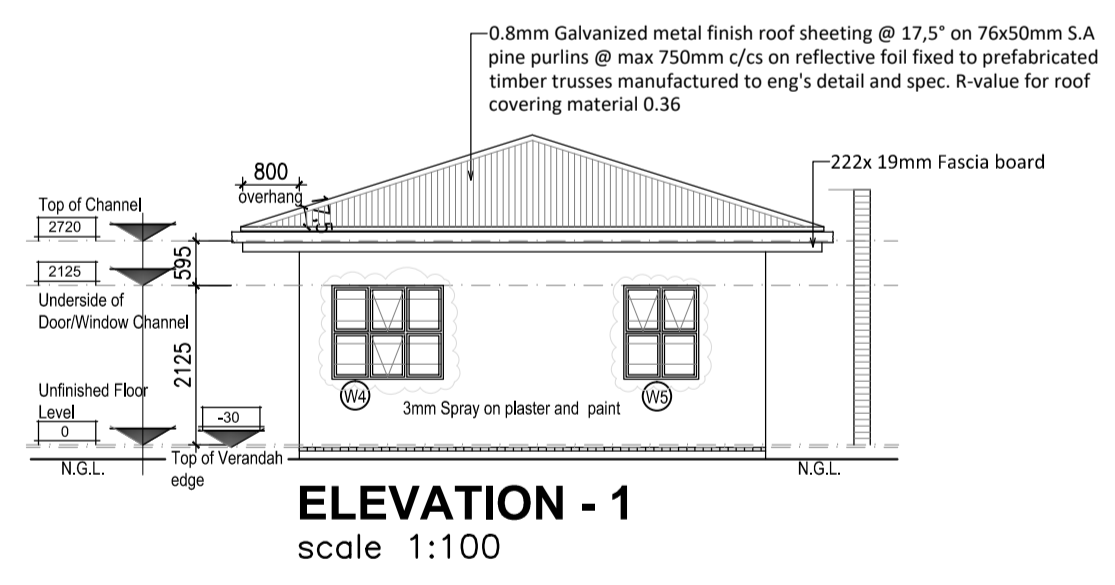




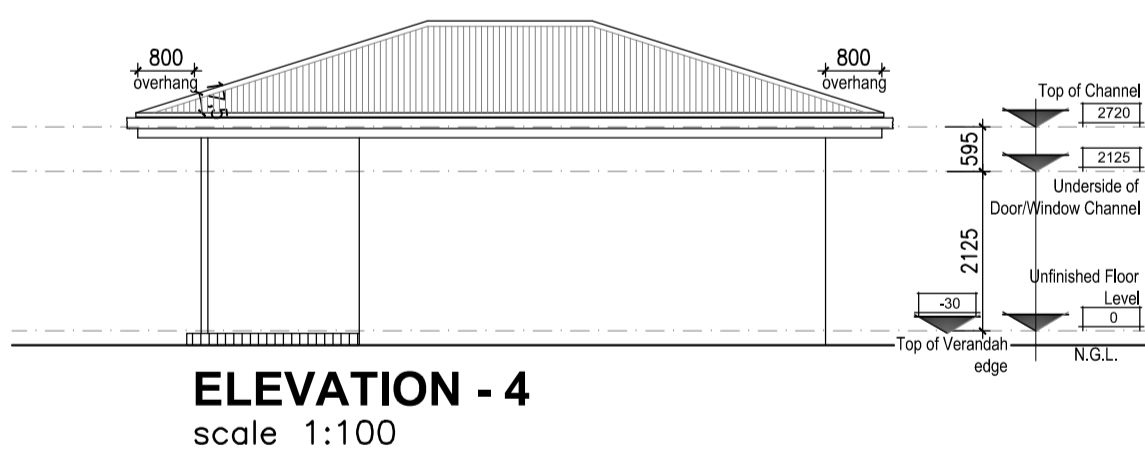
**GR-D PLAN - SINGLE GRADE R CLASSROOM**  
scale 1:100



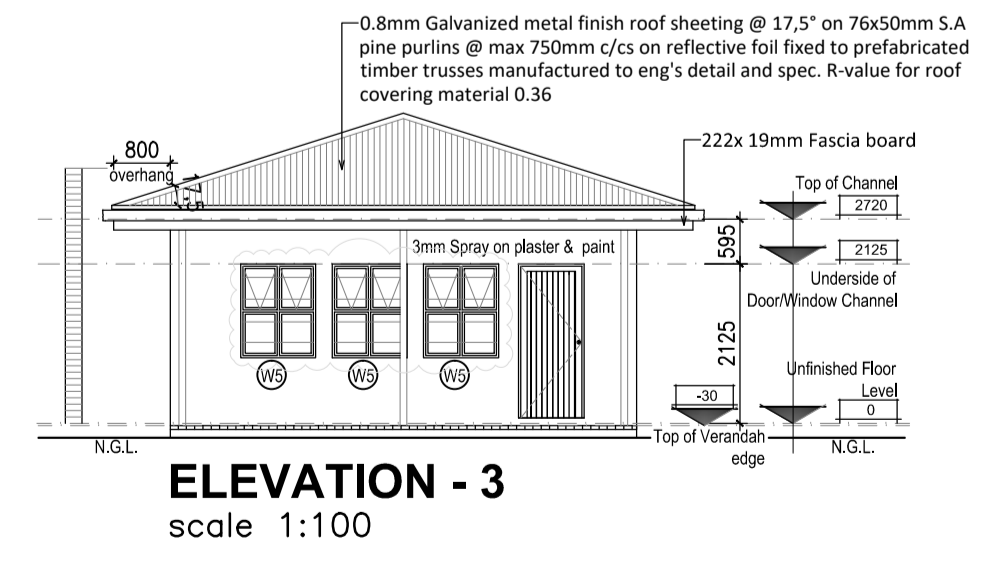
**SECTION A-A**  
scale 1:50



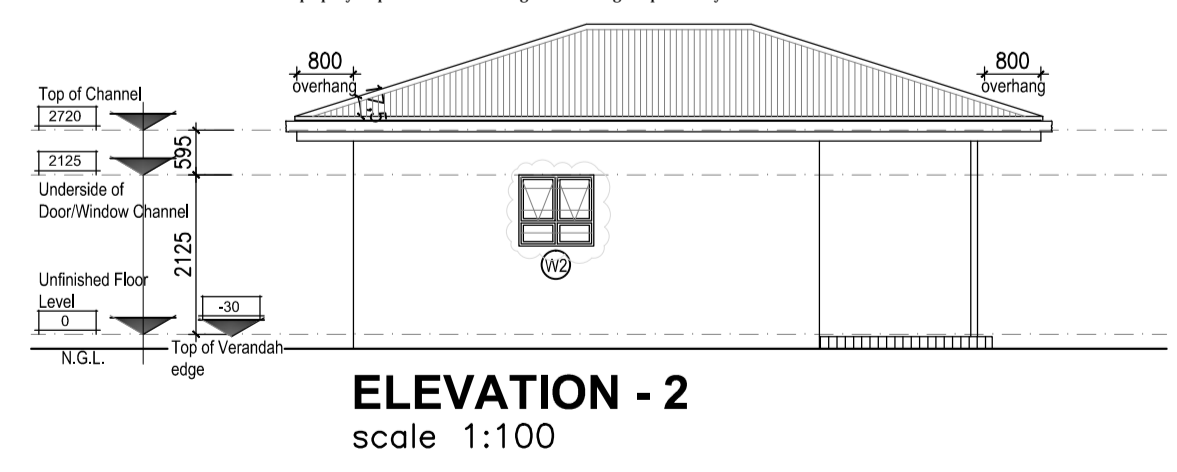
**ELEVATION - 1**  
scale 1:100



**ELEVATION - 4**  
scale 1:100



**ELEVATION - 3**  
scale 1:100

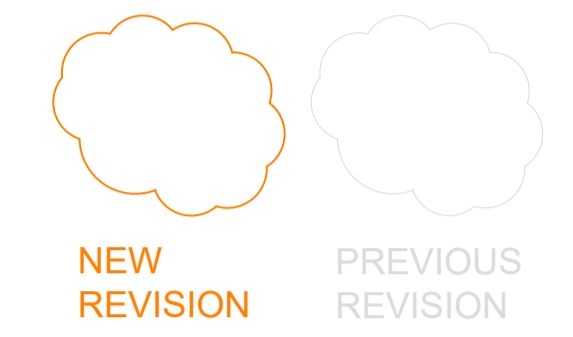


**ELEVATION - 2**  
scale 1:100

Note: All gutter specifications must be galvanneal sheet iron or seamless aluminium/zinc alloy. Use heavy duty fixing brackets as we are channelling all the water to tanks and the gutters will be fixed to capacity during storms. No use of PVC gutters allowed as they fail in a long term. The final position of the tank to be as per site plan, position on the standard working drawing to be issued indicative. Pipe details connection gutters to tanks must be provided on separate sheet if necessary. For suspended pipes where they are crossing over walkways, use mild steel pipes to avoid sagging. Note that all fittings to be fixed properly as per SABS & SANS regulations and good practice systems.

- NOTES:**
- DRAWING NOT TO BE SCALED, FIGURED DIMENSIONS TO BE USED.
  - ALL LEVELS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.
  - CONTRACTOR TO REPORT ANY DISCREPANCIES REGARDING DIMENSIONS, LEVELS & NOTES TO THE ARCHITECT BEFORE CONSTRUCTION COMMENCES.
  - ALL STRUCTURAL WORK TO ENGINEERS DETAIL. SPECIFICATION ACCORDING TO SANS 1016.
  - ALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

REVISIONS		
NO.	DATE	DESCRIPTION
A	13/NOV/2018	1. All windows changed to aluminium windows.
B	08/FEB/2019	1. Gate G05 added.
C	01/March/2019	1. Truss configuration changed & walls extended to top of roof.



**FOR CONSTRUCTION**

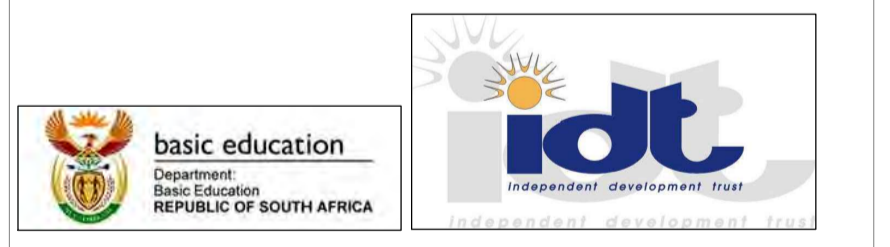
CONSULTANTS	
PRINCIPAL AGENT	Ngonyama Okpanum & Associates
QUANTITY SURVEYORS	Mokate Monk & Du Plessis
ARCHITECTS	Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS	CSE Consulting
ELECTRICAL ENGINEERS	Richard Nzuba & Associates



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EAST LONDON | JOHANNESBURG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | UMHATHO | NELSPRUIT | POLKOVINE | NIGERIA

SHEET SIZE			
NAME	SIGNATURE	DATE	A1
DESIGNED	-		SCALE SCALE 1:100 1:50
DRAWN	-		
VERIFIED	-		STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
VALIDATED	-		

**EASTERN CAPE SCHOOL BUILDING PROGRAMME**



DEPARTMENT OF INDEPENDENT DEVELOPMENT EDUCATION TRUST

**IDT SCHOOL BUILDING PROGRAMME**

**DRAWING TITLE**  
**RIVERVIEW PROPOSED SINGLE GRADE R WITH CLASSROOMS, PLAN, SECTION & ELEVATIONS**

EMIS No: 200400967

DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RIV/GRD/WD/2.102
		C



NOTES:  
 1. DRAWING NOT TO BE SCALED. FIGURED DIMENSIONS TO BE USED.  
 2. ALL LEVELS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.  
 3. CONTRACTOR TO REPORT ANY DISCREPANCIES REGARDING DIMENSIONS, LEVELS & NOTES TO THE ARCHITECT BEFORE CONSTRUCTION COMMENCES.  
 4. ALL STRUCTURAL WORK TO ENGINEER'S DETAIL, SPECIFICATION & CONFIRMATION.  
 5. SALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

REVISIONS		
NO.	DATE	DESCRIPTION
A	13/NOV/2018	1. All windows changed to aluminium windows.
B	08/FEB/2019	1. Gate G05(X2) added.
C	01/MAR/2019	1. Roof truss configuration changed.



**FOR CONSTRUCTION**

**CONSULTANTS**

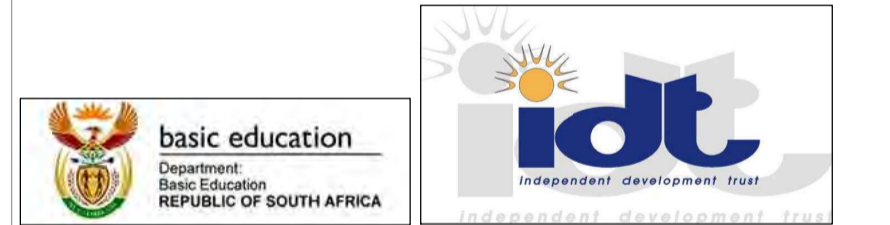
PRINCIPAL AGENT	Ngonyama Okpanum & Associates
QUANTITY SURVEYORS	Mokate Monk & Du Plessis
ARCHITECTS	Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS	CSE Consulting
ELECTRICAL ENGINEERS	Richard Nzuzza & Associates



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 1 EAST LONDON | SCHAMBERG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | MAMABATHO | NELSPRUIT | POLKOVNINE | INDRIPATI

	NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-			A1
DRAWN	-			SCALE 1:100 1:50
VERIFIED	-			STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
VALIDATED	-			

**EASTERN CAPE SCHOOL BUILDING PROGRAMME**



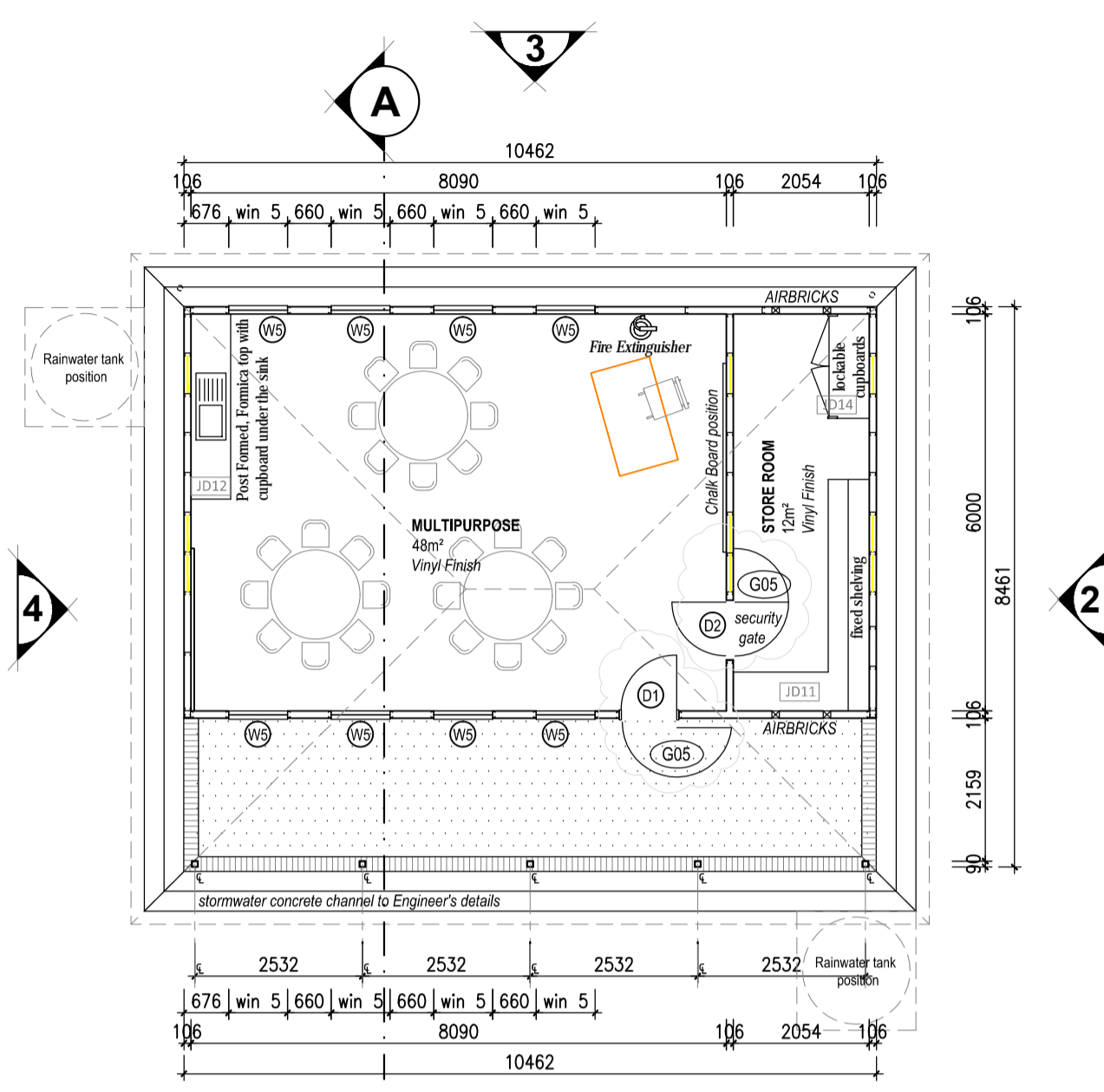
DEPARTMENT OF EDUCATION | INDEPENDENT DEVELOPMENT TRUST

**PROJECT**  
**IDT SCHOOL BUILDING PROGRAMME**

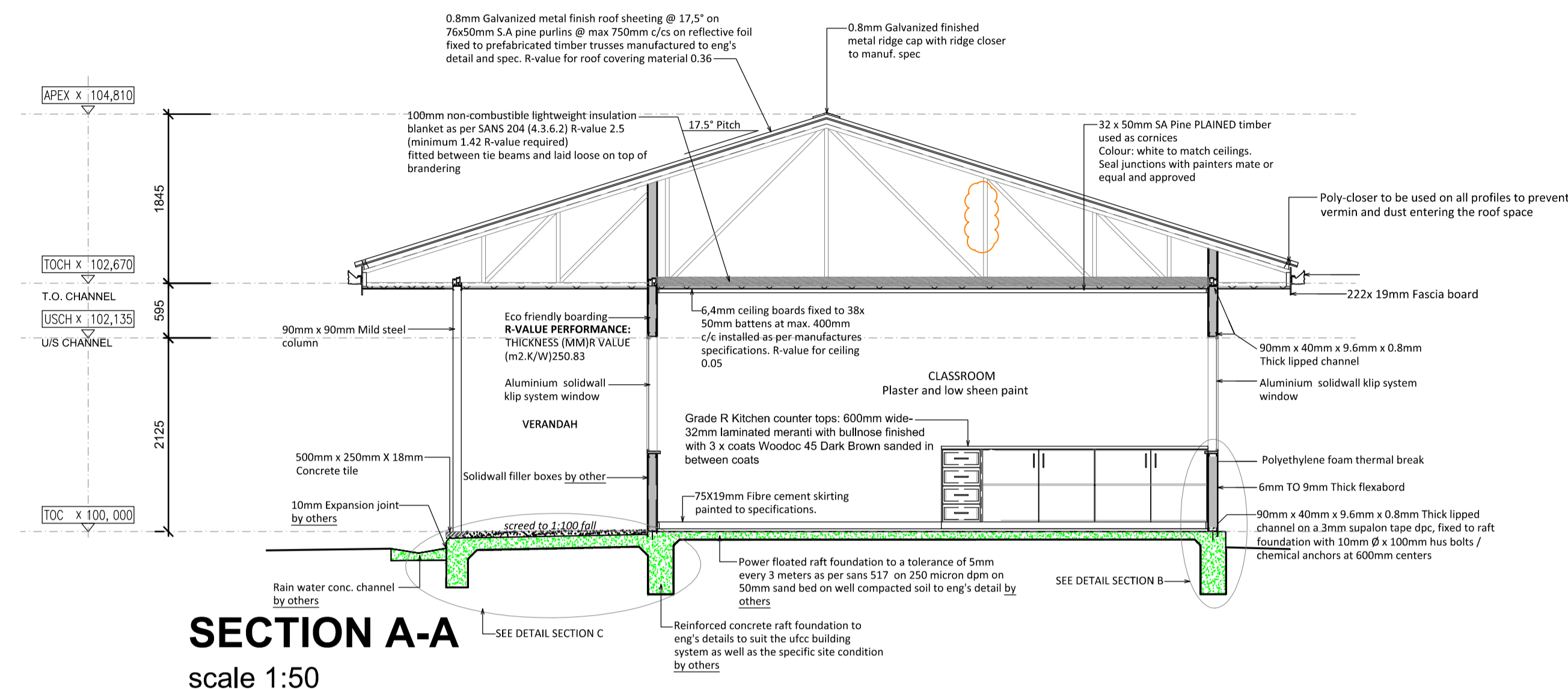
**DRAWING TITLE**  
**RIVERVIEW PROPOSED MULTIPURPOSE WITH STORE, PLAN, SECTION & ELEVATIONS**

EMIS No: 200400967

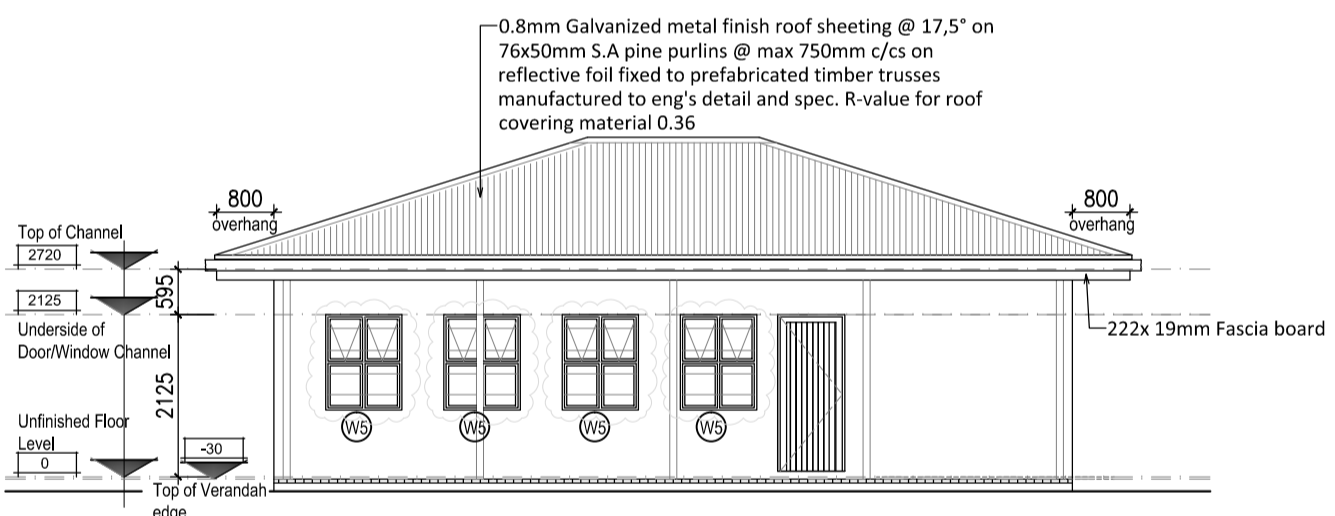
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200400967	Architecture	IDT/RIV/MPCASTO/WD/2.105	C



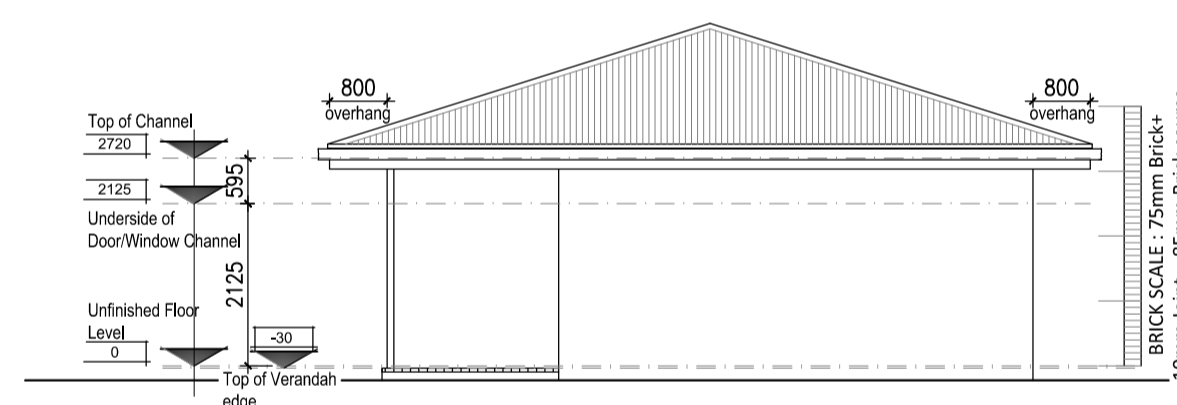
**PLAN - MULTIPURPOSE WITH STORE FLOOR LAYOUT**  
 60m<sup>2</sup> scale 1:100  
**MPC+STO**



**SECTION A-A**  
 scale 1:50

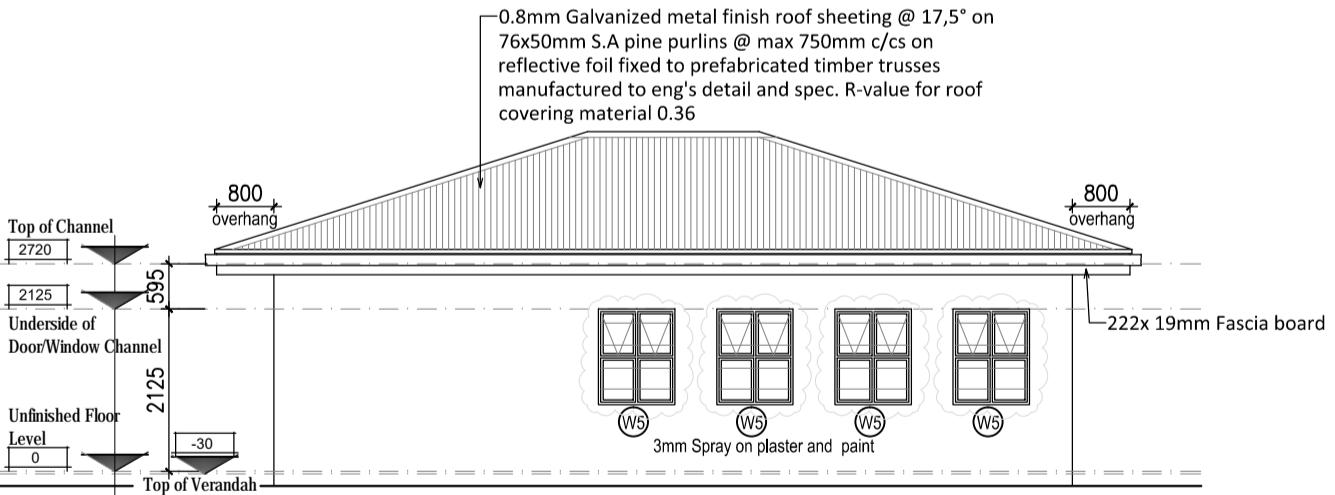


**ELEVATION - 1**  
 scale 1:100

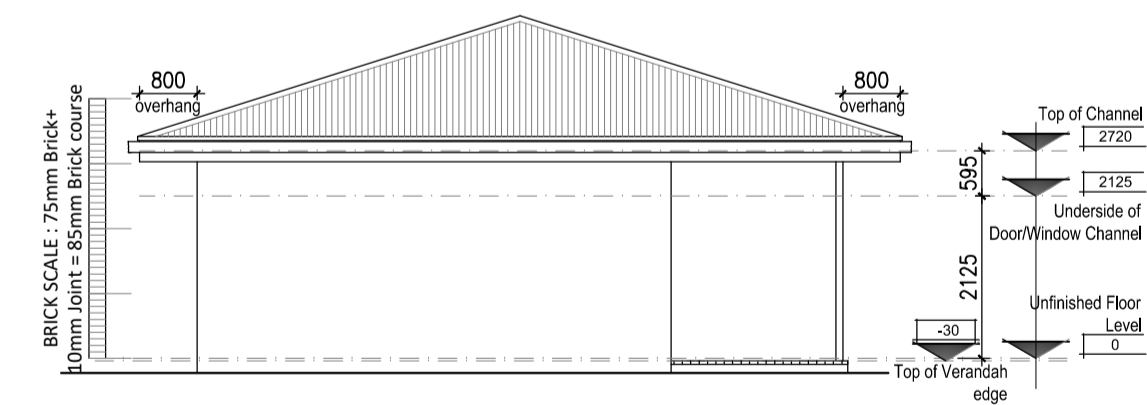


**ELEVATION - 2**

Note: All gutter specifications must be galvanneal sheet iron or seamless aluminium/zinc alum. Use heavy duty fixing brackets as we are channeling all the water to tanks and the gutters will be filled to capacity during storms. No use of PVC gutters allowed as they fail in a long term. The final position of the tank to be as per site plan, position on the standard working drawing to be named indicative. Pipe details connection gutters to tanks must be provided on separate sheet if necessary. For suspended pipes where they are crossing over walkways, use mild steel pipes to avoid sagging. Note that all fittings to be fixed properly as per SANS & SANS regulations and good practice systems.

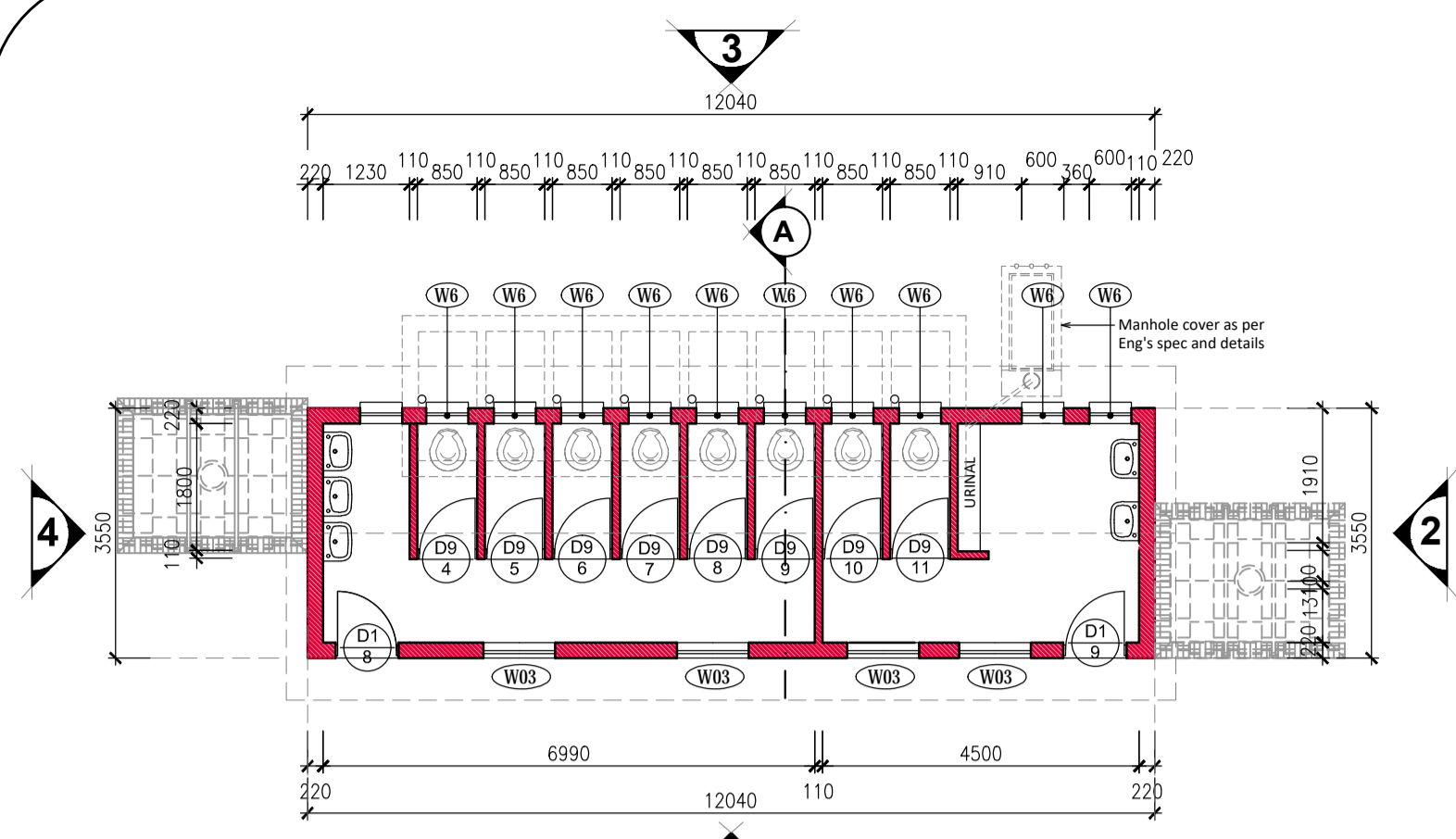


**ELEVATION - 3**  
 scale 1:100

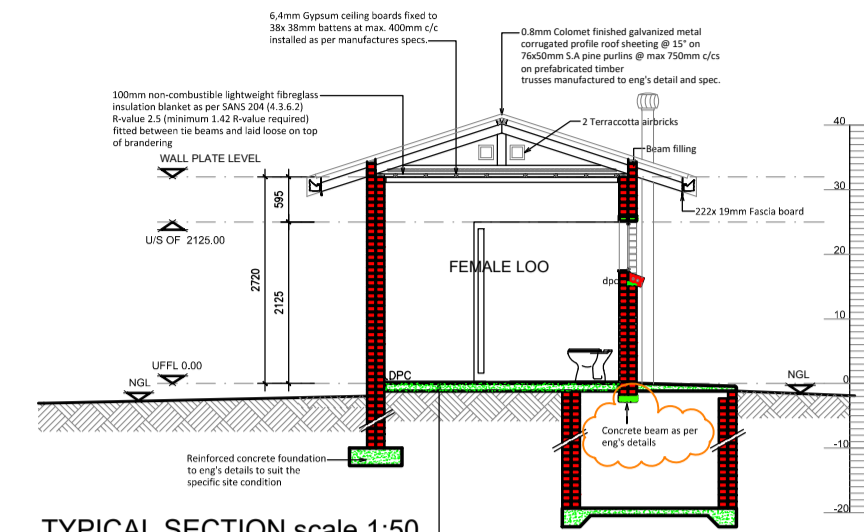


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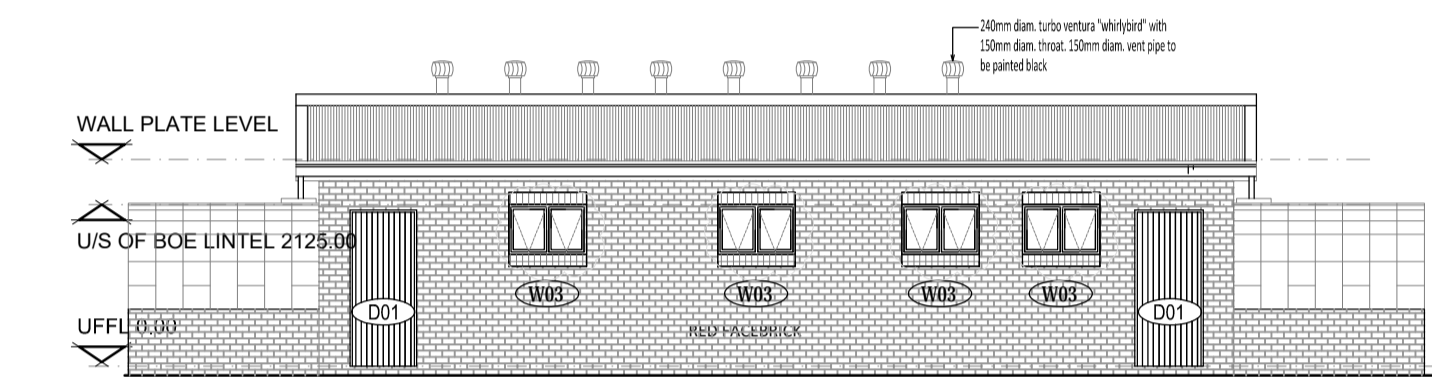




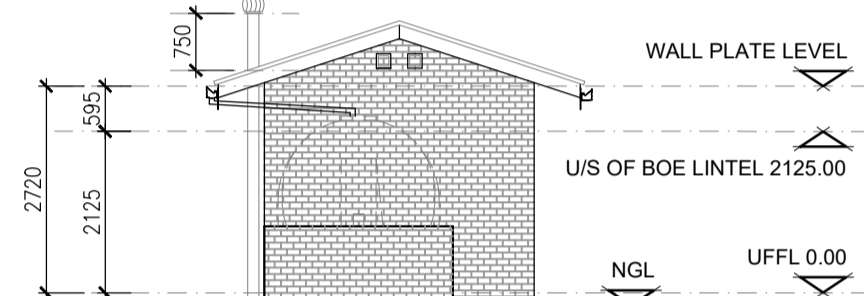
**LEARNER'S MALE AND FEMALE**  
scale 1:100



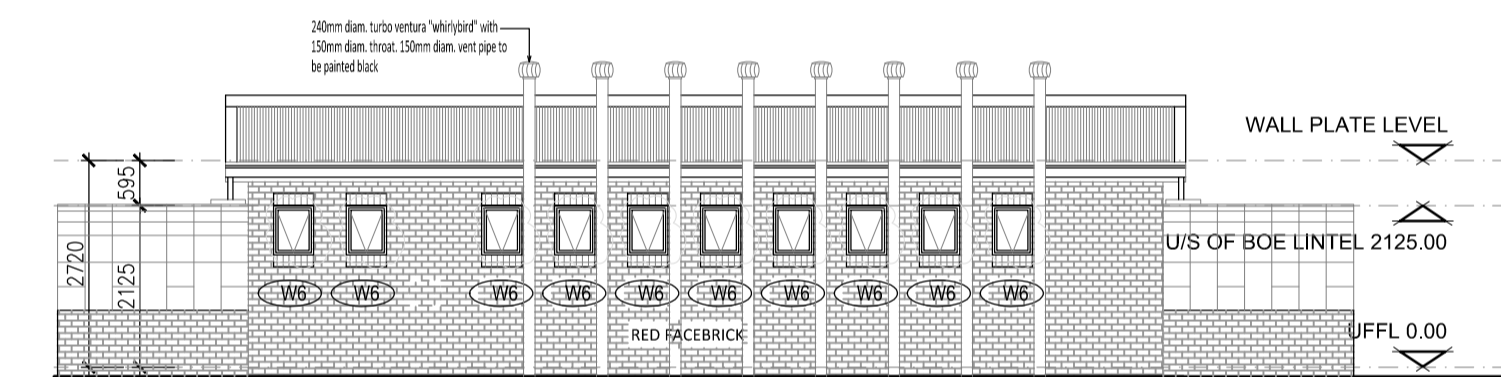
TYPICAL SECTION scale 1:50



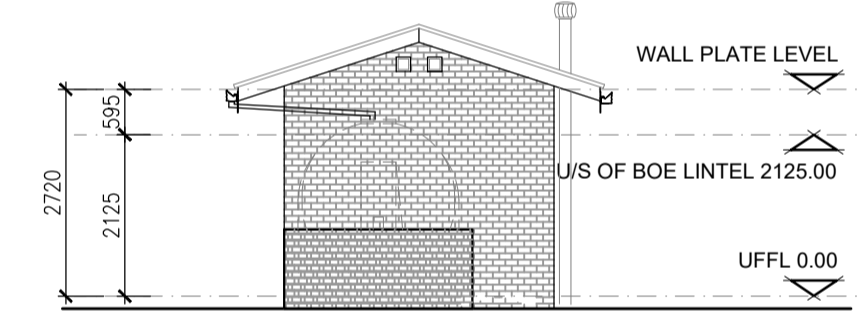
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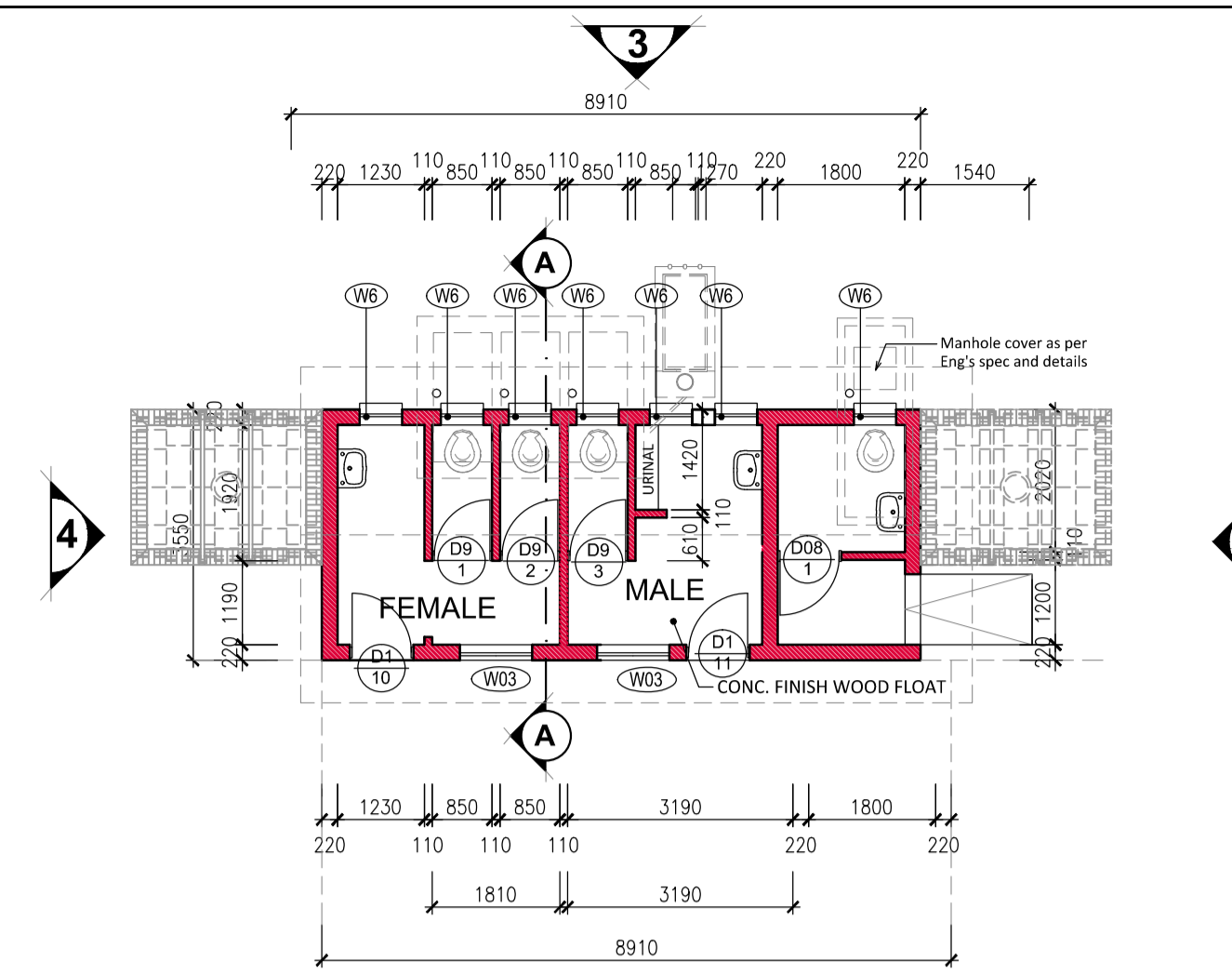
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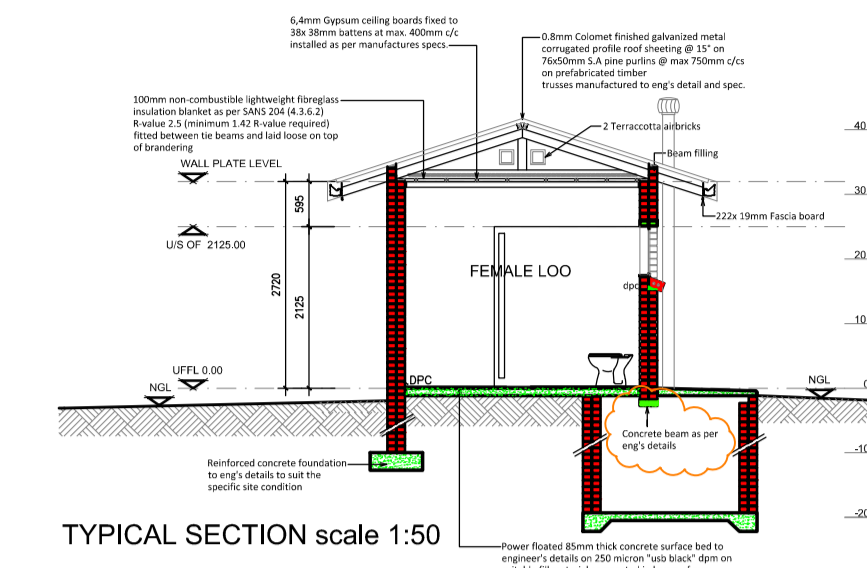
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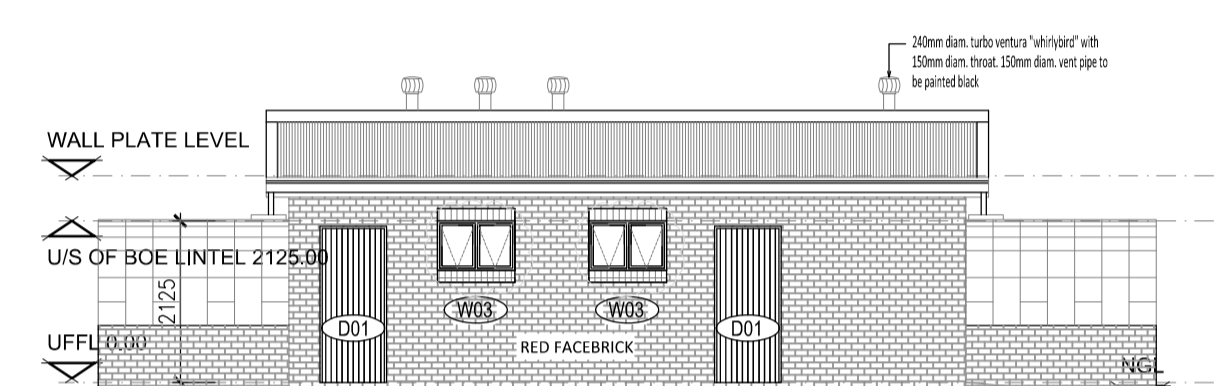
**ELEVATION - 2** scale 1:100



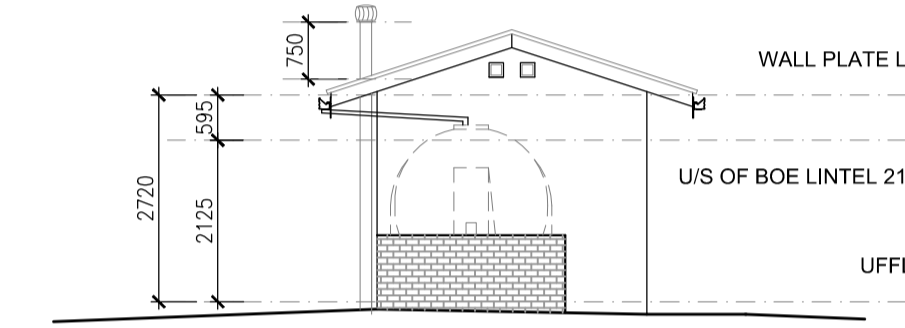
**PLAN - EDUCATORS VIP TOILETS**  
scale 1:100



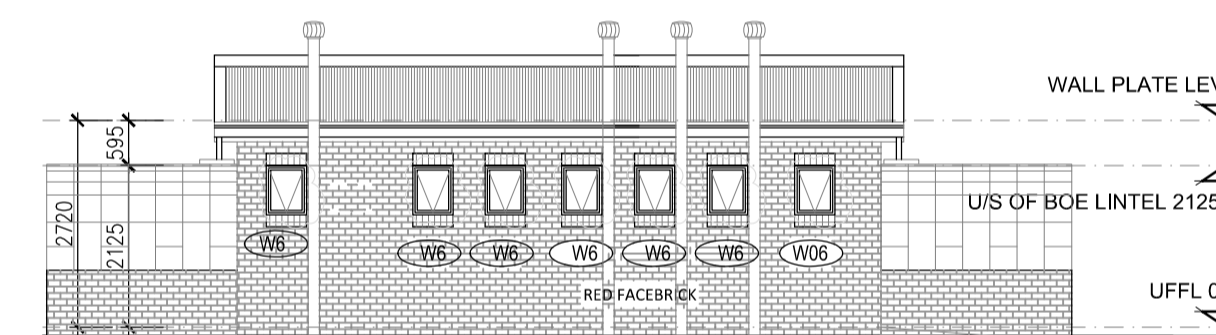
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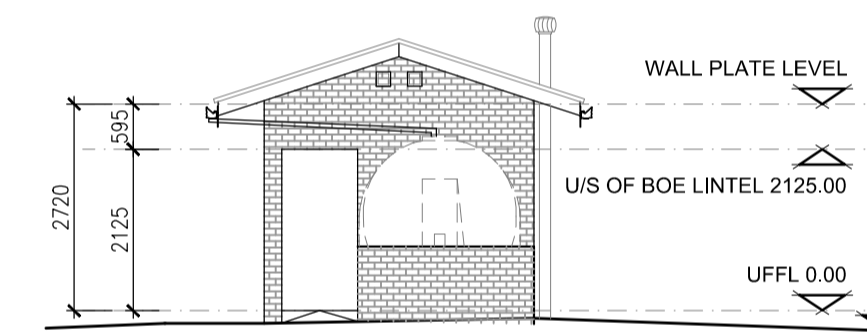
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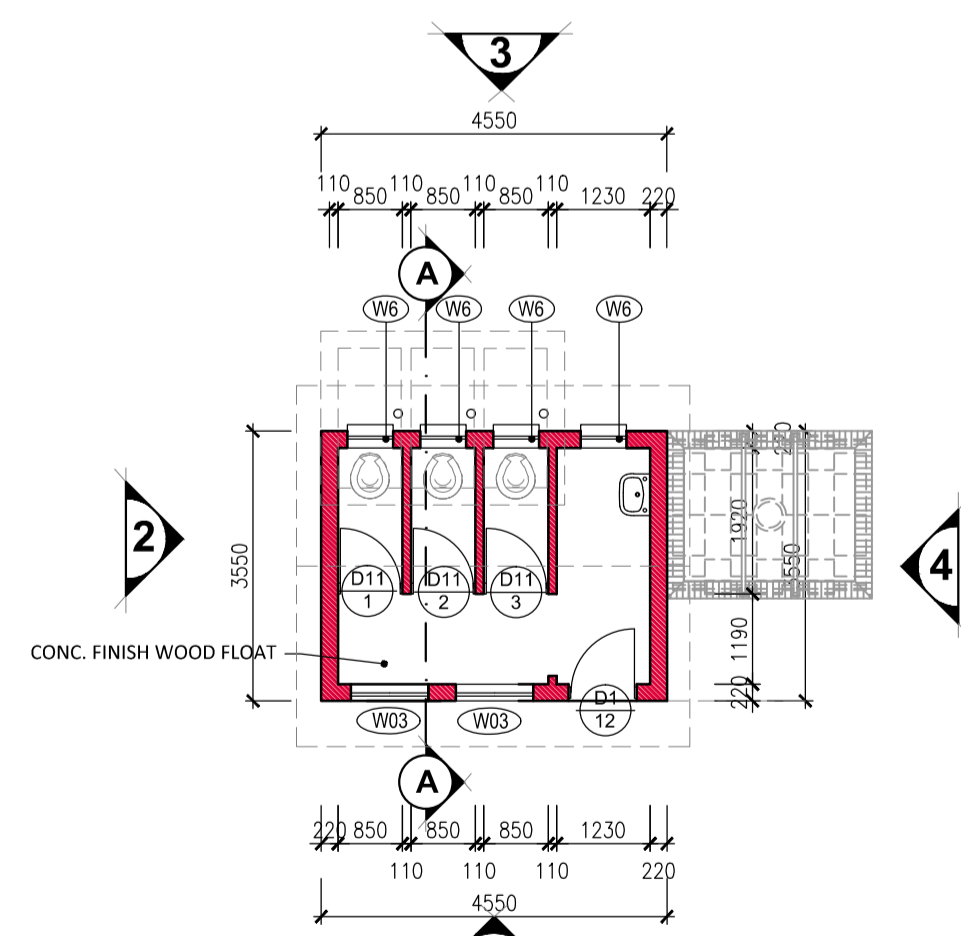
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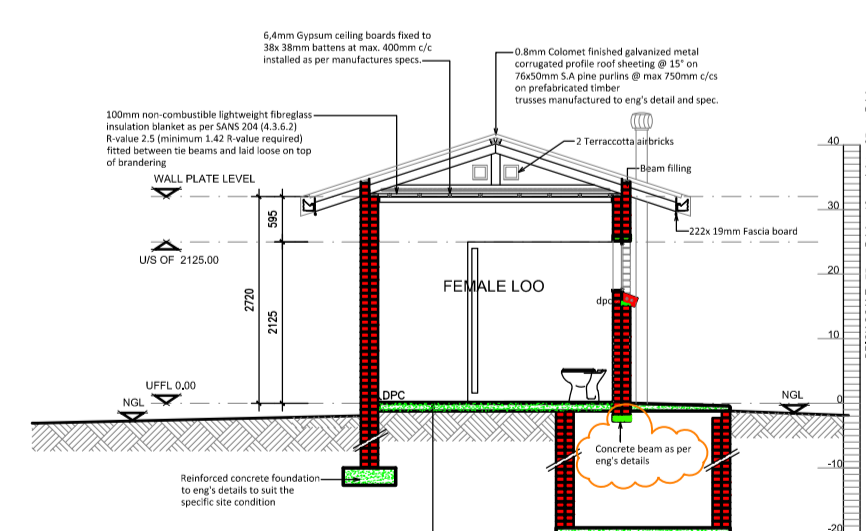
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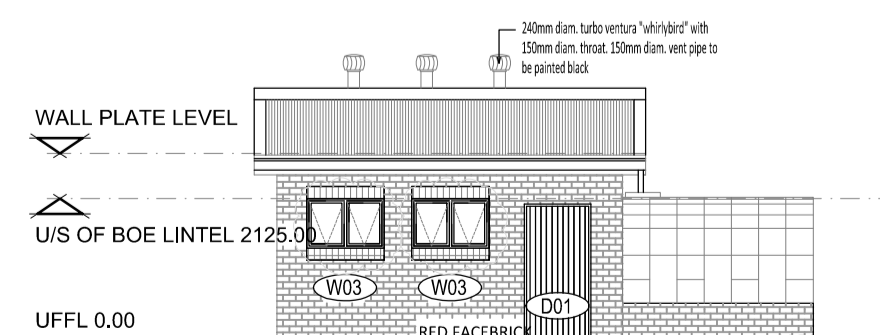
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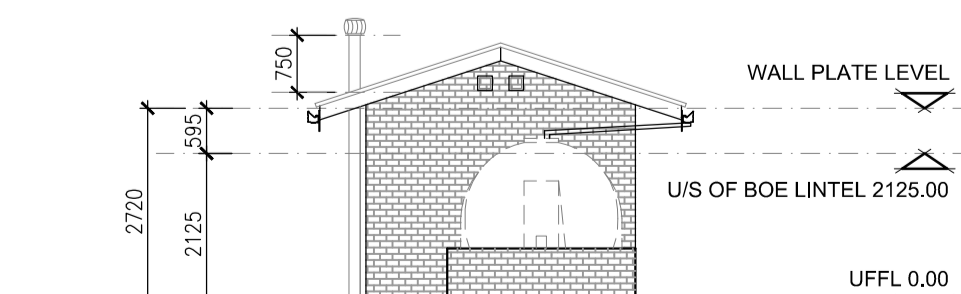
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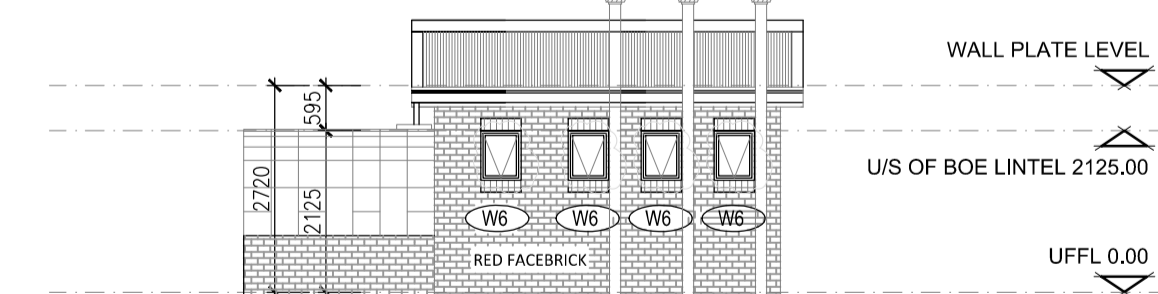
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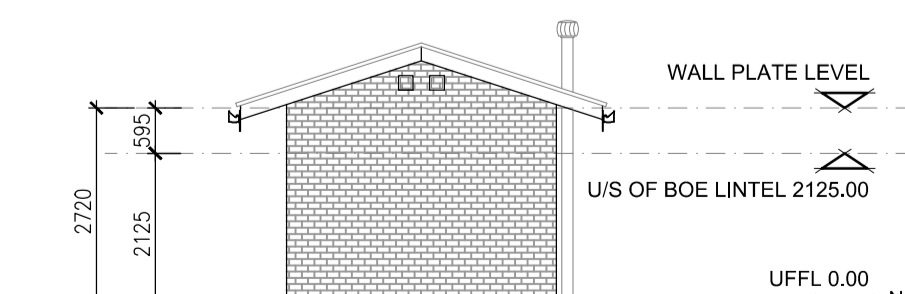
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**ELEVATION - 4** scale 1:100



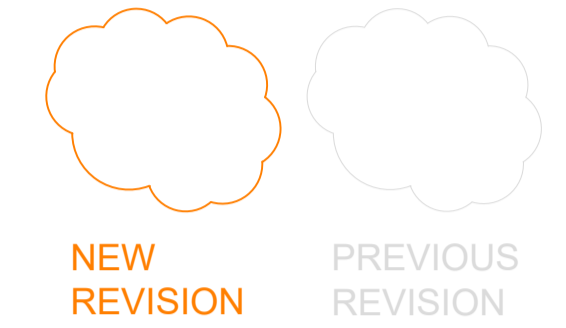
**ELEVATION - 3** scale 1:100



**ELEVATION - 2** scale 1:100

- NOTES:
- DRAWING NOT TO BE SCALED, FIGURED DIMENSIONS TO BE USED.
  - ALL LEVELS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.
  - CONTRACTOR TO REPORT ANY DISCREPANCIES REGARDING DIMENSIONS, LEVELS & NOTES TO THE ARCHITECT BEFORE CONSTRUCTION COMMENCES.
  - ALL STRUCTURAL WORK TO ENGINEERS DETAIL, SPECIFICATION & CONFIRMATION.
  - ALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

REVISIONS		
NO.	DATE	DESCRIPTION
A	13/NOV/2018	1. All windows changed to aluminium windows.
B	01/MAR/2019	1. Concrete beam note added.



**FOR CONSTRUCTION**

CONSULTANTS	
PRINCIPAL AGENT	Ngonyama Okpanum & Associates
QUANTITY SURVEYORS	Mokate Monk & Du Plessis
ARCHITECTS	Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS	CSE Consulting
ELECTRICAL ENGINEERS	Richard Nzuza & Associates



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 1 | EAST LONDON | JOHANNESBURG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | UMBOMBATHO | NELSPRUIT | POLDORPNEK | INDEKRA

	NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-			A1
DRAWN	-			SCALE 1: 100
VERIFIED	-			STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
VALIDATED	-			

**EASTERN CAPE SCHOOL BUILDING PROGRAMME**



DEPARTMENT OF EDUCATION | INDEPENDENT DEVELOPMENT TRUST

**PROJECT**  
**IDT SCHOOL BUILDING PROGRAMME**

**DRAWING TITLE**  
**RIVERVIEW, LEARNERS AND TEACHERS TOILETS**

**EMIS No: 200400967**

DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RIV/VIP TOI/W/DJ.2.106



TYPE	SPECIAL "ALUMINIUM WINDOW"		SPECIAL "ALUMINIUM WINDOW"		SPECIAL "ALUMINIUM WINDOW"		SPECIAL "ALUMINIUM WINDOW"	
AREA	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY
WINDOW TYPE	W01		W02		W03		W04	
FRAME	30.5mm ALUMINIUM TOP HUNG WITH 30° RESTRICTIVE STAY		30.5mm ALUMINIUM TOP HUNG WITH 30° RESTRICTIVE STAY 2 BOTTOM FIXED PANES		30.5mm ALUMINIUM TOP HUNG WITH 30° RESTRICTIVE STAY		30.5mm ALUMINIUM TOP HUNG WITH 30° RESTRICTIVE STAY	
GLASS	LOW E GLASS: 6.38mm SAFETY GLASS		LOW E GLASS: 6.38mm SAFETY GLASS		LOW E GLASS: 6.38mm SAFETY GLASS		LOW E GLASS: 6.38mm SAFETY GLASS	
FITTINGS	6mmX55mm LONG NAILS FOR FRAME		6mmX55mm LONG NAILS FOR FRAME		6mmX55mm LONG NAILS FOR FRAME		6mmX55mm LONG NAILS FOR FRAME	
BURGLAR BARS	12mm x 12mm SOLID STEEL POWDER COATED HORIZONTAL BURGLAR BARS.BARS TO BE FIXED AT INTERVALS OF±150mm,SECURITY SCREWS TO ALL OPENING SECTIONS.		12mm x 12mm SOLID STEEL POWDER COATED HORIZONTAL BURGLAR BARS.BARS TO BE FIXED AT INTERVALS OF±150mm,SECURITY SCREWS TO ALL OPENING SECTIONS.		12mm x 12mm SOLID STEEL POWDER COATED HORIZONTAL BURGLAR BARS.BARS TO BE FIXED AT INTERVALS OF±150mm,SECURITY SCREWS TO ALL OPENING SECTIONS.			
FINISH	POWDER COATED COLOUR BY ARCHITECT		POWDER COATED COLOUR BY ARCHITECT		POWDER COATED COLOUR BY ARCHITECT		POWDER COATED COLOUR BY ARCHITECT	
NOTES	-		-		-		-	
NO OFF	SEE PLANS		SEE PLANS		SEE PLANS		SEE PLANS	

SCALE N.T.S. WINDOW SCHEDULE

TYPE	SPECIAL "ALUMINIUM WINDOW"		SPECIAL "ALUMINIUM WINDOW"		SPECIAL "ALUMINIUM WINDOW"	
AREA	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY
WINDOW TYPE	W05		W06		W07	
FRAME	30.5mm ALUMINIUM TOP HUNG WITH 30° RESTRICTIVE STAY 2 BOTTOM FIXED PANES		30.5mm ALUMINIUM TOP HUNG WITH 30° RESTRICTIVE STAY		30.5mm ALUMINIUM TOP HUNG WITH 30° RESTRICTIVE STAY	
GLASS	LOW E GLASS: 6.38mm SAFETY GLASS		LOW E GLASS: 6.38mm SAFETY GLASS		LOW E GLASS: 6.38mm SAFETY GLASS	
FITTINGS	6mmX55mm LONG NAILS FOR FRAME		6mmX55mm LONG NAILS FOR FRAME		6mmX55mm LONG NAILS FOR FRAME	
BURGLAR BARS	12mm x 12mm SOLID STEEL POWDER COATED HORIZONTAL BURGLAR BARS.BARS TO BE FIXED AT INTERVALS OF±150mm,SECURITY SCREWS TO ALL OPENING SECTIONS.		12mm x 12mm SOLID STEEL POWDER COATED HORIZONTAL BURGLAR BARS.BARS TO BE FIXED AT INTERVALS OF±150mm,SECURITY SCREWS TO ALL OPENING SECTIONS.		12mm x 12mm SOLID STEEL POWDER COATED HORIZONTAL BURGLAR BARS.BARS TO BE FIXED AT INTERVALS OF±150mm,SECURITY SCREWS TO ALL OPENING SECTIONS.	
FINISH	POWDER COATED COLOUR BY ARCHITECT		POWDER COATED COLOUR BY ARCHITECT		POWDER COATED COLOUR BY ARCHITECT	
NOTES	-		-		-	
NO OFF	SEE PLANS		SEE PLANS		SEE PLANS	

SCALE N.T.S. WINDOW SCHEDULE

TYPE	SPECIAL "SLIDING"		SPECIAL "FIXED PANE"		SPECIAL "FIXED PANE"		SPECIAL "FIXED PANE"		SPECIAL "FIXED PANE"	
AREA	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY	BLOCK A ADMINISTRATION LARGE	BLOCK B SCIENCE LABORATORY
WINDOW TYPE	W08		W09		W10		W11		W12	
FRAME					AL-UCO ALUMINIUM WINDOW SOLIDWALL KLIP SYSTEM		AL-UCO ALUMINIUM WINDOW SOLIDWALL KLIP SYSTEM		AL-UCO ALUMINIUM WINDOW SOLIDWALL KLIP SYSTEM	
GLASS/PANEL FITTING	LOW E GLASS: 6.38mm SAFETY GLASS		LOW E GLASS: 6.38mm SAFETY GLASS		6.78mm CLEAR SAFETY GLAZING THROUGHOUT AS PER PART N - GLAZING OF SANS 10400		6.78mm CLEAR SAFETY GLAZING THROUGHOUT AS PER PART N - GLAZING OF SANS 10400		6.78mm CLEAR SAFETY GLAZING THROUGHOUT AS PER PART N - GLAZING OF SANS 10400	
FITTINGS					SUPPLY 1 POLE AND BRASS HOOK WINDOW BOLT OPENER PER CLASSROOM				STANDARD FACTORY FITTINGS	
BURGLAR BARS										
FINISH	POWDER COATED COLOUR BY ARCHITECT		POWDER COATED COLOUR BY ARCHITECT						POWDER COATED COLOUR BY ARCHITECT	
NOTES	-		-		-		-		-	
NO OFF	SEE PLANS		SEE PLANS		SEE PLANS		SEE PLANS		SEE PLANS	

SCALE N.T.S. WINDOW SCHEDULE

- NOTES:
- DRAWING NOT TO BE SCALED. FIGURED DIMENSIONS TO BE USED.
  - ALL LEVELS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.
  - CONTRACTOR TO REPORT ANY DISCREPANCIES REGARDING DIMENSIONS, LEVELS & NOTES TO THE ARCHITECT BEFORE CONSTRUCTION COMMENCES.
  - ALL STRUCTURAL WORK TO ENGINEER'S DETAIL, SPECIFICATION & APPROVAL.
  - ALL WORK TO COMPLY WITH NATIONAL BUILDING REGULATIONS.

NO.	DATE	DESCRIPTION
A	13/NOV/2018	1. All windows changed to aluminium windows.



**FOR CONSTRUCTION**

CONSULTANTS	
PRINCIPAL AGENT	Ngonyama Okpanum & Associates
QUANTITY SURVEYORS	Mokate Monk & Du Plessis
ARCHITECTS	Ngonyama Okpanum & Associates
STRUCTURAL/CIVIL ENGINEERS	CSE Consulting
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 1 EAST LONDON | JOHANNESBURG | CAPE TOWN | PORT ELIZABETH | BLOEMFONTEIN | MBABATHO | NELSPRUIT | POLKWANE | INDEIRA

NAME	SIGNATURE	DATE	SHEET SIZE
DESIGNED	-		A1
DRAWN	-		SCALE NTS
VERIFIED	-		STATUS LEGEND I = INFORMATION T = TENDER C = CONSTRUCTION AB = AS BUILT
VALIDATED	-		

**EASTERN CAPE SCHOOL BUILDING PROGRAMME**



DEPARTMENT OF INDEPENDENT DEVELOPMENT EDUCATION TRUST

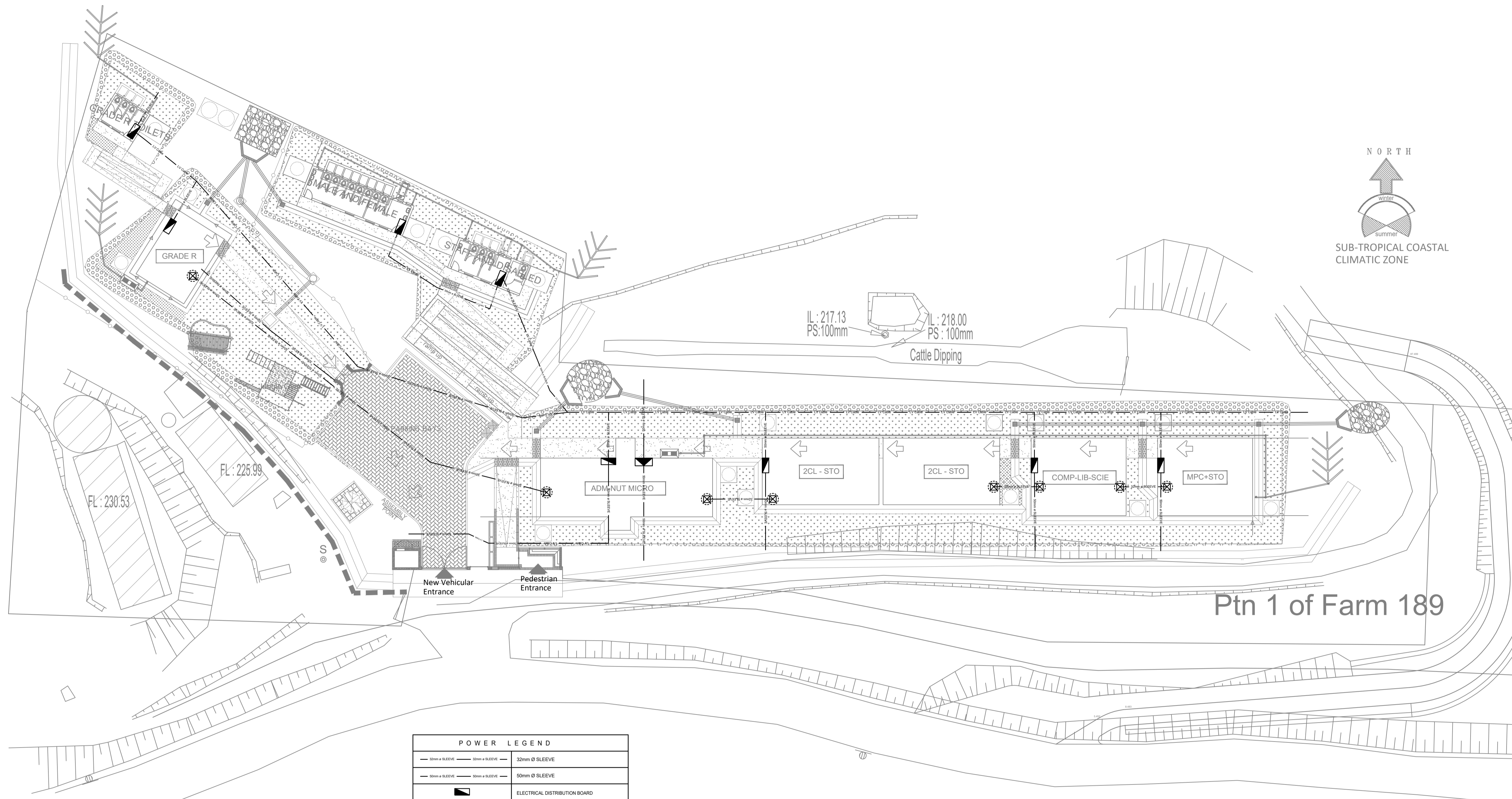
PROJECT  
**IDT SCHOOL BUILDING PROGRAMME**

DRAWING TITLE  
**WINDOW SCHEDULE**

EMIS No: 200400967

EMIS NUMBER	DISCIPLINE	DRAWING NUMBER	REVISION
200400967	Architecture	IDT/RIV/WIN/WD/2.107	A





POWER LEGEND	
	30mm Ø SLEEVE
	50mm Ø SLEEVE
	ELECTRICAL DISTRIBUTION BOARD
	POWER CABLES MANHOLE
	TELEPHONE CABLES MANHOLE
	TELEPHONE DISTRIBUTION BOARD WITH 10mm SHUTTER BOARD
	30W LED SOLAR POWERED POLE MOUNTED FLOOD LIGHT
	200 x 200 x 100mm DRAW BOX IN CEILING VOID

**GENERAL NOTES:**

- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE DETAILED SPECIFICATIONS.
- DO NOT SCALE LENGTHS OF SLEEVE, CABLES ETC FROM DRAWINGS.
- A COMPLETE SET OF DRAWINGS MUST BE AVAILABLE ON SITE AT ALL TIMES.
- FOR WIRING CONDUCTOR SIZES, REFER TO DB SCHEMATIC DIAGRAMS.
- CONDUITS TO BE INSTALLED IN STRAIGHT PARALLEL LINES IN CEILING VOIDS AND SADDLED AT EVERY TRUSS.
- SEE DETAILED SPECIFICATION FOR MOUNTING HEIGHTS OF SWITCHES, SWITCH SOCKET OUTLETS, ETC.
- NON-CORRODING DRAW WIRE / STRING TO BE INSTALLED IN ALL SPARE SLEEVES, TELEPHONE AND DATA CABLE CONDUITS AND SLEEVES.
- DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY THEY BECOME EVIDENT.
- ALLOW 4 x 20mmØ & 4 x 25mmØ SPARE CONDUITS FROM EACH DB TO CEILING VOIDS. (FLUSH MOUNTED DBs)
- IF NOT MEASURED IN THE BILL OF QUANTITIES, TELEPHONE AND DATA SOCKETS SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
- TELEPHONE AND DATA CONDUITS TO BE 25 Ø mm UNLESS INDICATED DIFFERENTLY ON DRAWINGS.
- IF NOT INDICATED ON DRAWINGS, IN RADIO ROOMS, KITCHENS AND WORK AREA, POWER SKIRTING OR WIRING CHANNELS TO BE ABOVE WORK TOP OR 1200mm A.F.F.L.
- CIRCUITING:
  - AC = AIR CONDITIONING
  - D = DEDICATED SSO
  - L = LIGHTING CIRCUIT
  - P = STANDARD SSO
  - XL = LIGHTING CIRCUIT ON STANDBY POWER
  - XP = STANDARD SSO ON STANDBY POWER
- DB DUCTS TO HAVE RISING CABLE TRAYS AS FOLLOWS:
  - 1x300mm WIDE FOR TELEPHONE, DATA AND FIRE DETECTION CABLES
  - 1x200mm WIDE FOR POWER CABLES (MINIMUM)
- ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.



REVISIONS			
REV	DATE	INIT.	DESCRIPTION
A	24/8/11/16	A.M	REVISED ACCORDING TO ARCHITECTS LAYOUT

**CLIENT**

**PROJECT**

IDT ASIDI SCHOOL 2nd BATCH - RIVERVIEW SPS - EMIS 200400967

**TITLE**

SITE PLAN: ELECTRICAL AND COMMUNICATION LAYOUT

**ARCHITECTS**

ARCHITECTS | PROJECT MANAGERS | URBAN DESIGNERS | INTERIOR DESIGNERS

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DESIGN	TENDER	CONSTRUCTION

DESIGNED BY: L.S.B.T.MDALA

SCALE: 1:250

DRAWN: L.S.B.T.MDALA

DATE: 10/11/2016

PRINT DATE: 08/02/2019

CHECKED BY: A.MNGCANDUBANA

REGISTRATION No. 201730089

SIGNED: \_\_\_\_\_

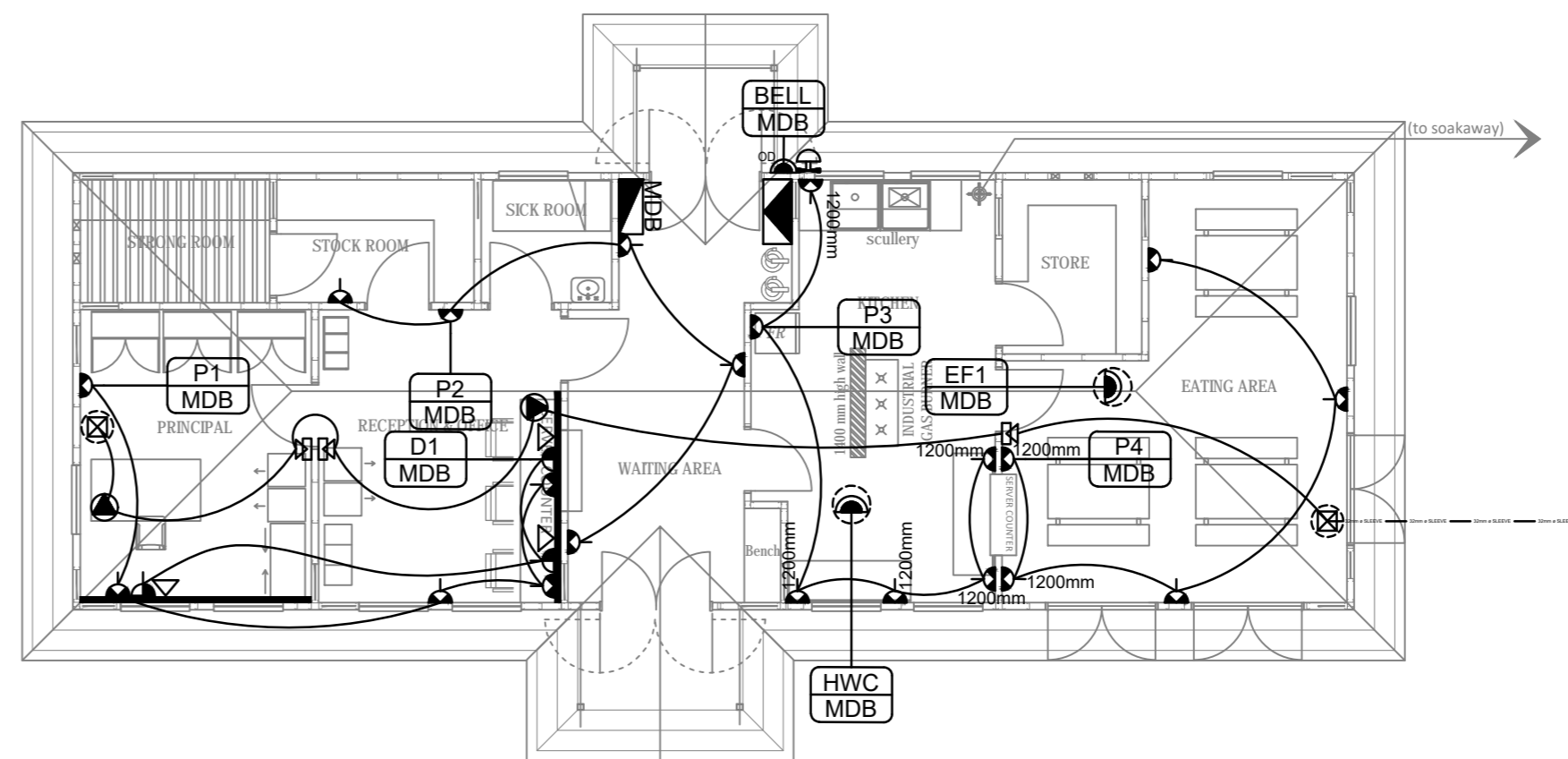
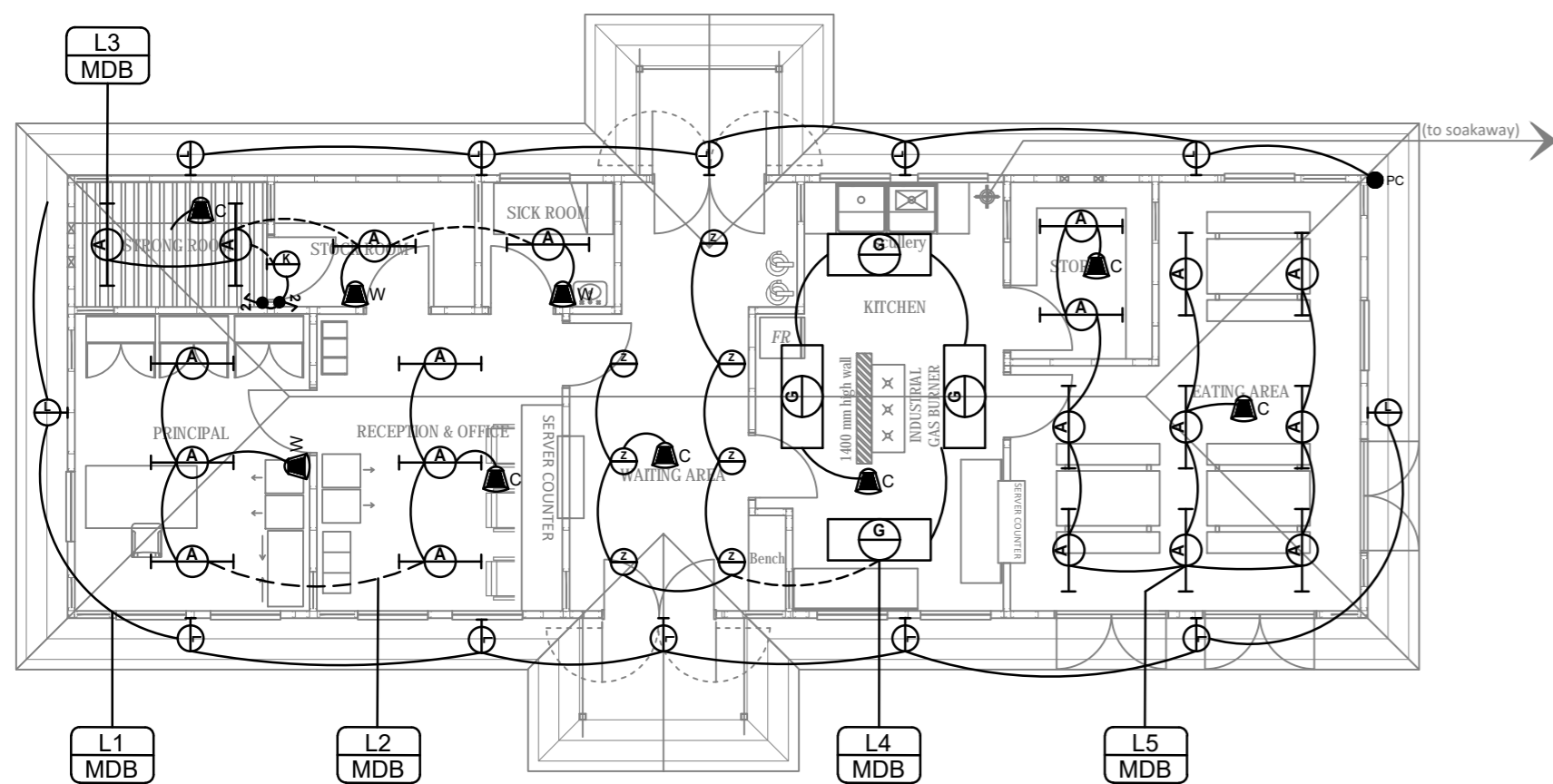
ARCHITECTS DRAWING NO. IDT/RIV/SP/1.101

REV No. E

DRAWING NO. 11323Ri-T-E-100

REV No. 00





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  - TELEPHONE AND DATA CONDUITS TO BE 25 Ø mm UNLESS INDICATED DIFFERENTLY ON DRAWINGS.
  - IF NOT INDICATED ON DRAWINGS, IN RADIO ROOMS, KITCHENS AND WORK AREA, POWER SKIRTING OR WIRING CHANNELS TO BE ABOVE WORK TOP OR 1200mm A.F.F.L.
  - CIRCUITING: AC = AIR CONDITIONING  
D = DEDICATED SSO  
L = LIGHTING CIRCUIT  
P = STANDARD SSO
  - ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.

REVISIONS			
REV	DATE	INT.	DESCRIPTION
A	21/11/16	A.M	REVISED ACCORDING TO ARCHITECTS LAYOUT
B	19/10/18	B.M	REVISED ACCORDING TO ARCHITECTS LAYOUT

**CLIENT**

**PROJECT**

IDT ASIDI SCHOOL 2nd BATCH - RIVERVIEW SPS - EMIS 200400967

**TITLE**

ADMIN AND DINING & NUTRITION BLOCK - LIGHTING & POWER LAYOUTS

**ARCHITECT**

ARCHITECTS | PROJECT MANAGERS | URBAN DESIGNERS | INTERIOR DESIGNERS

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DESIGN	TENDER	CONSTRUCTION

DESIGNED BY: L.S.B.T. MDALA  
SCALE: 1:100

DRAWN: L.S.B.T. MDALA  
DATE: 07/11/2016  
PRINT DATE: 08/02/2019

CHECKED BY: A. MNGCANDUBANA  
REGISTRATION No. 201730089

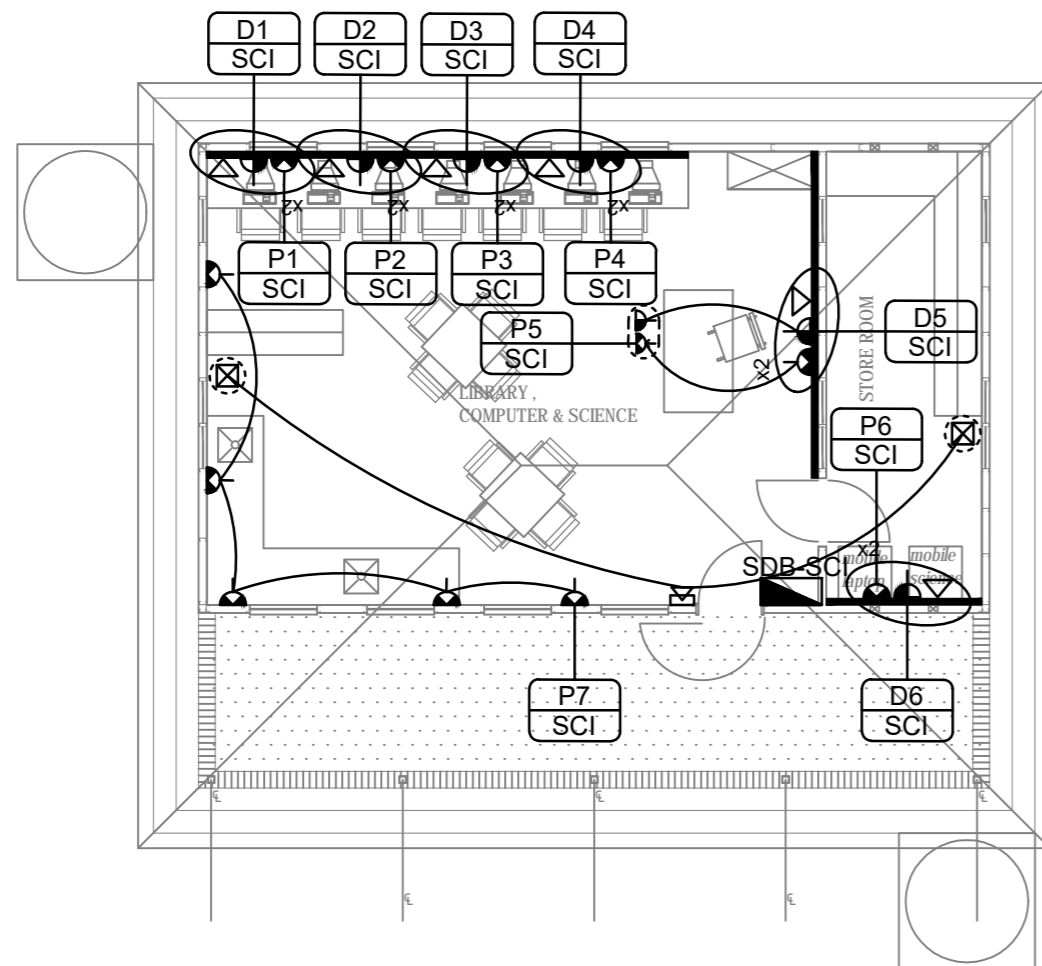
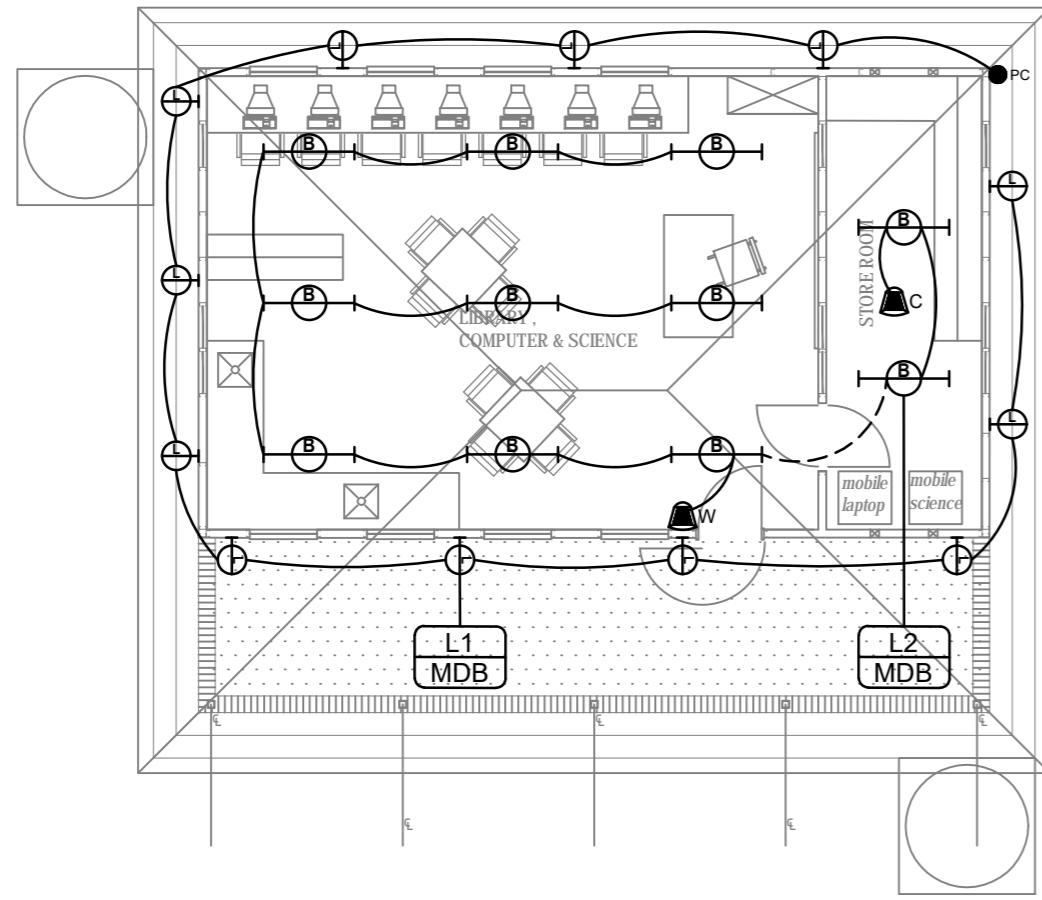
SIGNED:

DRAWING No. 1323Ri-T-E-101  
REV No. 00

LIGHTING LEGEND	
● PC	PHOTO CELL
Ⓒ	MOTION (OCCUPANCY) SENSOR
⒱	WALL MOUNTED MOTION (OCCUPANCY) SENSOR
Ⓐ	1 Lever - 2 Way - Light Switch
Ⓐ	40W LED TWO OPEN CHANNEL FLORESCENT LUMINAIRE WITH LED DRIVERS
Ⓐ	10W WALL MOUNTED INDICATION LIGHT WITH RED LENS
Ⓐ	20W LED DECORATIVE WALL MOUNTED BULKHEAD LUMINAIRE WITH LED DRIVERS AND MODULE AND IP65 RATING
Ⓐ	20W LED DECORATIVE CEILING MOUNT DOWNLIGHTER WITH LED DRIVERS AND MODULE AND IP65 RATING
Ⓐ	40W LED CORROSION PROOF FLORESCENT LUMINAIRE WITH LED DRIVERS
Ⓐ	40W LED SURFACE MOUNTED 1200mm x 600mm LUMINAIRE WITH LOW BRIGHTNESS DIFFUSER

POWER LEGEND	
▽	DATA LINE CONNECTION POINT
▽	TELEPHONE POINT
Ⓐ	16A 3-PIN DEDICATED SWITCHED SOCKET OUTLET (RED) AT 450mm A.F.F.L.
Ⓐ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN STANDARD SWITCHED SOCKET OUTLET & 16A 3-PIN SOCKET OUTLET AT 450mm A.F.L.
Ⓐ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN STANDARD SWITCHED SOCKET OUTLET 16A 3-PIN SOCKET OUTLET & USB SOCKET OUTLET AT 450mm A.F.L.
Ⓐ	2 POLE WATER TIGHT OUTDOOR ISOLATOR
—	POWER SKIRTING
⊠	POWER SKIRTING RISER
⊠	ELECTRICAL DISTRIBUTION BOARD
⊠	TELEPHONE DISTRIBUTION BOARD WITH 10mm SHUTTER BOARD (Note dimensions)
⊠	200 x 200 x 100mm DRAW BOX IN CEILING VOID
⊠	ONE WAY INTERCOM
⊠	DESK MOUNTED INTERCOM CONTROL STATION (WITH MICROPHONE AND PUSH BUTTON)
---	50mm Ø SLEEVE
---	32mm Ø SLEEVE
Ⓐ	2000m PERIOD BELL
⊠	DOUBLE POLE INDOOR ISOLATOR IN CEILING VOID

ARCHITECTS DRAWING NO. REV No.



LIGHTING LEGEND	
● PC	PHOTO CELL
Ⓢ C	MOTION (OCCUPANCY) SENSOR
Ⓢ W	WALL MOUNTED MOTION (OCCUPANCY) SENSOR
Ⓢ	1 Lever - 2 Way - Light Switch
Ⓢ	40W LED TWO OPEN CHANNEL FLORESCENT LUMINAIRE WITH LED DRIVERS
Ⓢ	10W WALL MOUNTED INDICATION LIGHT WITH RED LENS
Ⓢ	20W LED DECORATIVE WALL MOUNTED BULKHEAD LUMINAIRE WITH LED DRIVERS AND MODULE AND IP65 RATING
Ⓢ	20W LED DECORATIVE CEILING MOUNT DOWNLIGHTER WITH LED DRIVERS AND MODULE AND IP65 RATING
Ⓢ	40W LED CORROSION PROOF FLORESCENT LUMINAIRE WITH LED DRIVERS
Ⓢ	40W LED SURFACE MOUNTED 1200mm x 600mm LUMINAIRE WITH LOW BRIGHTNESS DIFFUSER

POWER LEGEND	
▽	DATA LINE CONNECTION POINT
▼	TELEPHONE POINT
Ⓢ	16A 3-PIN DEDICATED SWITCHED SOCKET OUTLET (RED) AT 450mm A.F.L.
Ⓢ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN STANDARD SWITCHED SOCKET OUTLET & 16A 3-PIN SOCKET OUTLET AT 450mm A.F.L.
Ⓢ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN STANDARD SWITCHED SOCKET OUTLET & 16A 3-PIN SOCKET OUTLET & USB SOCKET OUTLET AT 450mm A.F.L.
Ⓢ	2 POLE WATER TIGHT OUTDOOR ISOLATOR
—	POWER SKIRTING
Ⓢ	POWER SKIRTING RISER
Ⓢ	ELECTRICAL DISTRIBUTION BOARD
Ⓢ	TELEPHONE DISTRIBUTION BOARD WITH 10mm SHUTTER BOARD (Note dimensions)
Ⓢ	200 x 200 x 100mm DRAW BOX IN CEILING VOID
Ⓢ	ONE WAY INTERCOM
Ⓢ	DESK MOUNTED INTERCOM CONTROL STATION (WITH MICROPHONE AND PUSH BUTTON)
—	50mm Ø SLEEVE
—	32mm Ø SLEEVE
Ⓢ	2000m PERIOD BELL
Ⓢ	DOUBLE POLE INDOOR ISOLATOR IN CEILING VOID
Ⓢ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN SURGE PROTECTED STANDARD SWITCHED SOCKET OUTLET 16A 3-PIN SOCKET OUTLET 16A 3-PIN DEDICATED SWITCHED SOCKET OUTLET (RED) IN CEILING VOID

- GENERAL NOTES:**
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE DETAILED SPECIFICATIONS.
  - DO NOT SCALE LENGTHS OF SLEEVE, CABLES ETC FROM DRAWINGS.
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  - CONDUITS TO BE INSTALLED IN STRAIGHT PARALLEL LINES IN CEILING VOIDS AND SADDLED AT EVERY TRUSS.
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  - ALLOW 4 X 20mmØ & 4 X 25mmØ SPARE CONDUITS FROM EACH DB TO CEILING VOIDS (FLUSH MOUNTED DBs)
  - IF NOT MEASURED IN THE BILL OF QUANTITIES, TELEPHONE AND DATA SOCKETS SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
  - TELEPHONE AND DATA CONDUITS TO BE 25 Ø mm UNLESS INDICATED DIFFERENTLY ON DRAWINGS.
  - IF NOT INDICATED ON DRAWINGS, IN RADIO ROOMS, KITCHENS AND WORK AREA, POWER SKIRTING OR WIRING CHANNELS TO BE ABOVE WORK TOP OR 1200mm A.F.L.
  - CIRCUITING: AC = AIR CONDITIONING  
D = DEDICATED SSO  
L = LIGHTING CIRCUIT  
P = STANDARD SSO
  - ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.

REVISIONS			
REV	DATE	INIT.	DESCRIPTION
A	21/11/16	A.M	REVISED ACCORDING TO ARCHITECTS LAYOUT

**CLIENT**

**PROJECT**

IDT ASIDI SCHOOL 2nd BATCH - RIVERVIEW SPS - EMIS 200400967

**TITLE**

MULTI-MEDIA & SCIENCLAB CLASS (MED-D & SCIE-D) - LIGHTING & POWER LAYOUTS

**ARCHITECT**

ARCHITECTS | PROJECT MANAGERS | URBAN DESIGNERS | INTERIOR DESIGNERS

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**CESA**  
Consulting Engineers South Africa

DESIGN	TENDER	CONSTRUCTION

DESIGNED BY: L.S.B.T. MDALA      SCALE: 1:100

DRAWN: L.S.B.T. MDALA      DATE: 07/11/2016      PRINT DATE: 08/02/2019

CHECKED BY: A. MNGCANDUBANA

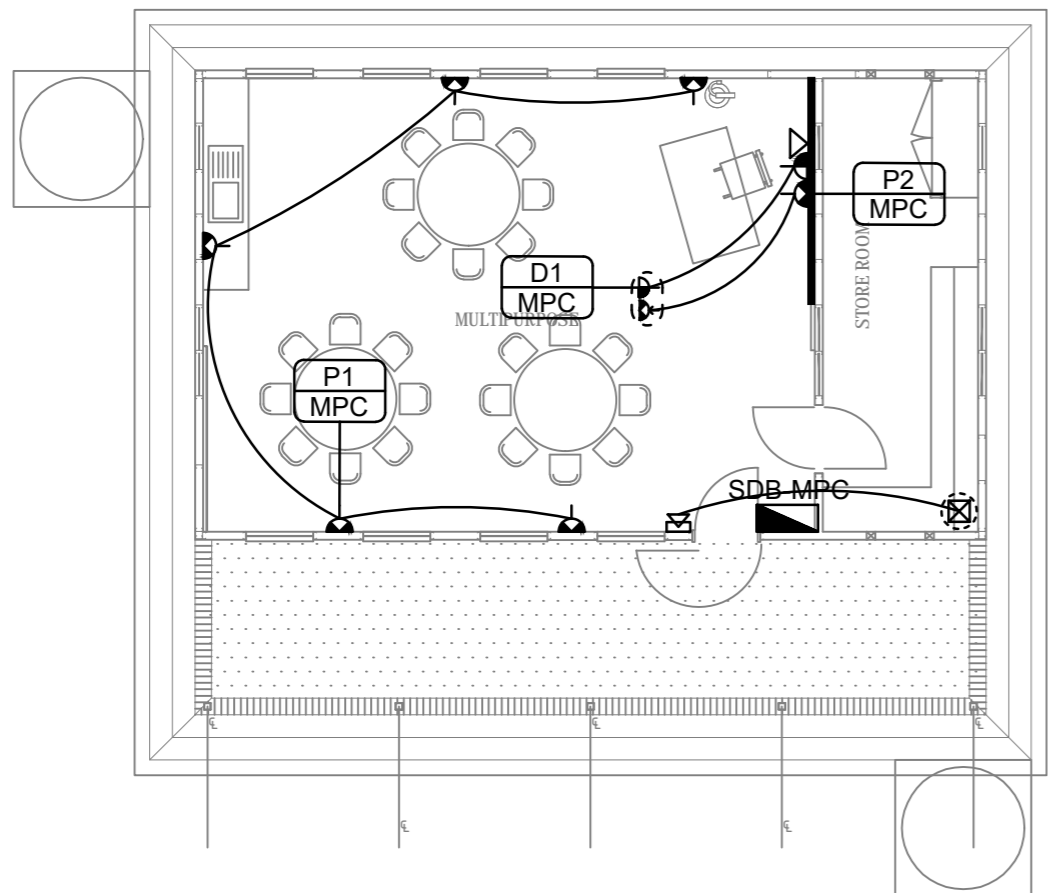
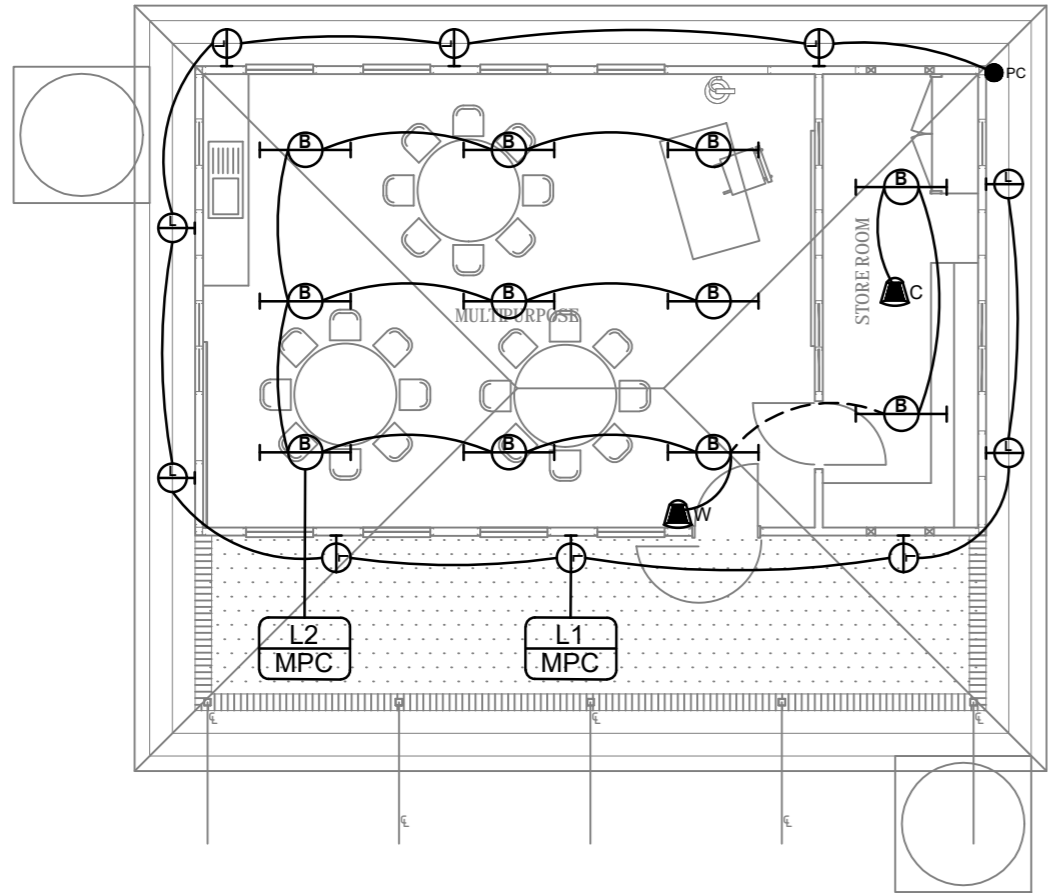
REGISTRATION No. 201730089

SIGNED: \_\_\_\_\_

ARCHITECTS DRAWING NO.      REV No.

DRAWING NO. 1323RI-T-E-102      REV No. 00





LIGHTING LEGEND	
● PC	PHOTO CELL
Ⓒ	MOTION (OCCUPANCY) SENSOR
⒱	WALL MOUNTED MOTION (OCCUPANCY) SENSOR
2/	1 Lever - 2 Way - Light Switch
Ⓕ	40W LED TWO OPEN CHANNEL FLORESCENT LUMINAIRE WITH LED DRIVERS
Ⓘ	10W WALL MOUNTED INDICATION LIGHT WITH RED LENS
⊕ ⊕	20W LED DECORATIVE WALL MOUNTED BULKHEAD LUMINAIRE WITH LED DRIVERS AND MODULE AND IP65 RATING
⊕	20W LED DECORATIVE CEILING MOUNT DOWNLIGHTER WITH LED DRIVERS AND MODULE AND IP65 RATING
Ⓖ	40W LED CORROSION PROOF FLORESCENT LUMINAIRE WITH LED DRIVERS
Ⓗ	40W LED SURFACE MOUNTED 1200mm x 600mm LUMINAIRE WITH LOW BRIGHTNESS DIFFUSER

POWER LEGEND	
▽	DATA LINE CONNECTION POINT
▼	TELEPHONE POINT
Ⓕ	16A 3-PIN DEDICATED SWITCHED SOCKET OUTLET (RED) AT 450mm A.F.F.L.
Ⓕ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN STANDARD SWITCHED SOCKET OUTLET & 16A 3-PIN SOCKET OUTLET AT 450mm A.F.F.L.
Ⓕ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN STANDARD SWITCHED SOCKET OUTLET & 16A 3-PIN SOCKET OUTLET & USB SOCKET OUTLET AT 450mm A.F.F.L.
Ⓕ	2 POLE WATER TIGHT OUTDOOR ISOLATOR
—	POWER SKIRTING
⊠	POWER SKIRTING RISER
□	ELECTRICAL DISTRIBUTION BOARD
⊠	TELEPHONE DISTRIBUTION BOARD WITH 10mm SHUTTER BOARD (Note dimensions)
⊠	200 x 200 x 100mm DRAW BOX IN CEILING VOID
⊠	ONE WAY INTERCOM
⊠	DESK MOUNTED INTERCOM CONTROL STATION (WITH MICROPHONE AND PUSH BUTTON)
—	50mm Ø SLEEVE
—	32mm Ø SLEEVE
Ⓕ	2000m PERIOD BELL
Ⓕ	DOUBLE POLE INDOOR ISOLATOR IN CEILING VOID
Ⓕ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN SURGE PROTECTED STANDARD SWITCHED SOCKET OUTLET 16A 3-PIN SOCKET OUTLET 16A 3-PIN DEDICATED SWITCHED SOCKET OUTLET (RED) IN CEILING VOID

- GENERAL NOTES:**
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D = DEDICATED SSO  
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P = STANDARD SSO
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REVISIONS			
REV	DATE	INIT.	DESCRIPTION
A	21/11/16	A.M	REVISED ACCORDING TO ARCHITECTS LAYOUT

**CLIENT**

**PROJECT**

IDT ASIDI SCHOOL 2nd BATCH - RIVERVIEW SPS - EMIS 200400967

**TITLE**

MULTI-PURPOSE CLASS (MPC-D) - LIGHTING & POWER LAYOUTS

**ARCHITECT**

ARCHITECTS | PROJECT MANAGERS | URBAN DESIGNERS | INTERIOR DESIGNERS

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DESIGN	TENDER	CONSTRUCTION

DESIGNED BY: L.S.B.T. MDALA

SCALE: 1:100

DRAWN: L.S.B.T. MDALA

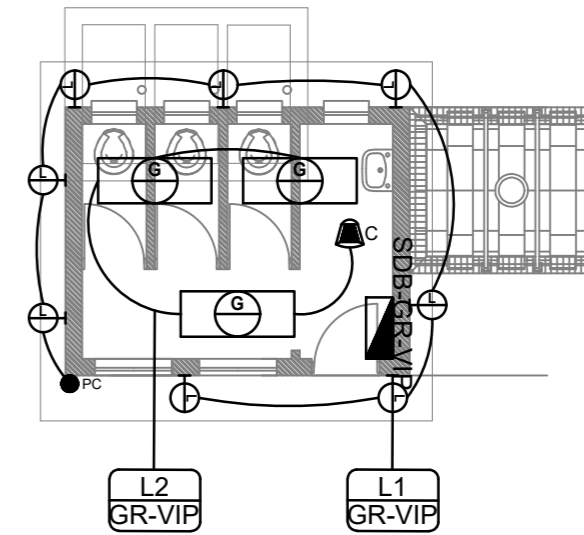
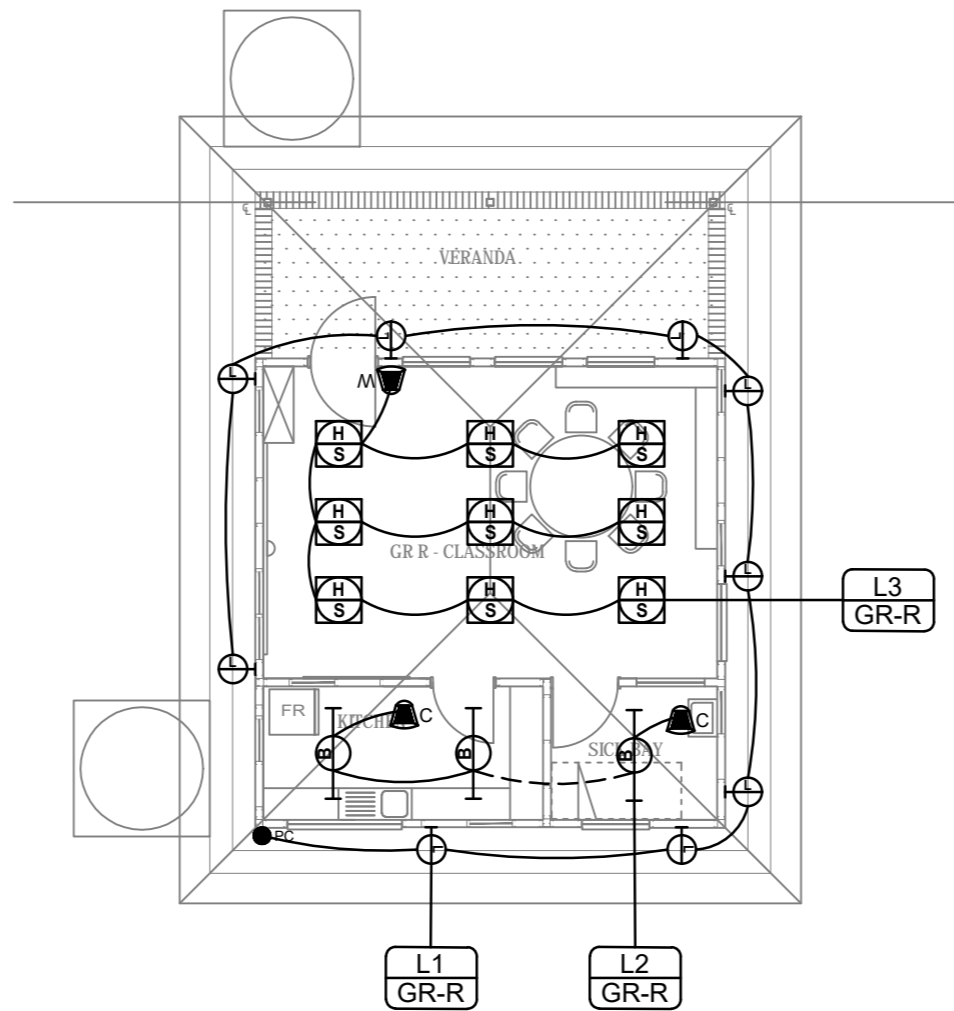
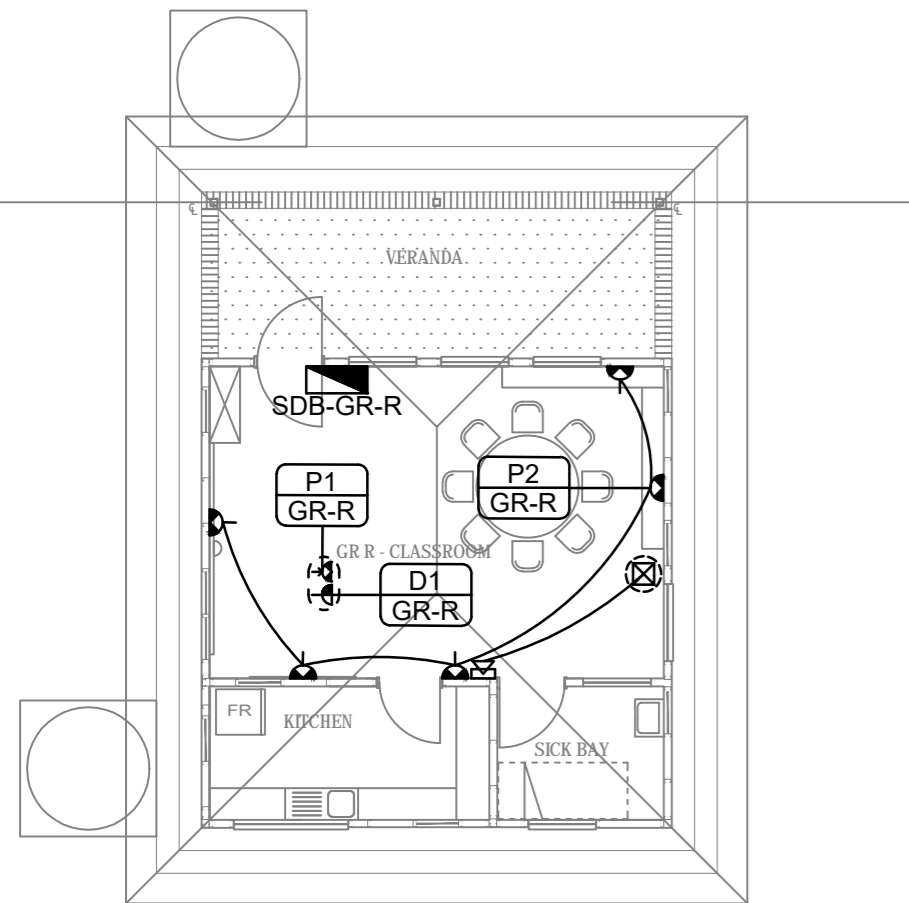
DATE: 07/11/2016

PRINT DATE: 08/02/2019

CHECKED BY: A. MNGCANDUBANA

REGISTRATION No. 201730089


SIGNED:



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L = LIGHTING CIRCUIT  
P = STANDARD SSO
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REVISIONS			
REV	DATE	INIT.	DESCRIPTION

CLIENT



PROJECT

**IDT ASIDI SCHOOL 2nd BATCH - RIVERVIEW SPS - EMIS 200400967**

TITLE

**GRADE-R BLOCK (GRADE-R-D) and GRADE-R ABLUTIONS - LIGHTING & POWER LAYOUTS**

ARCHITECT



ARCHITECTS | PROJECT MANAGERS | URBAN DESIGNERS | INTERIOR DESIGNERS

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**CESA**  
Consulting Engineers South Africa

DESIGN	TENDER	CONSTRUCTION
DESIGNED BY: L.S.B.T. MDALA	SCALE 1:100	
DRAWN L.S.B.T. MDALA	DATE 07/11/2016	PRINT DATE 08/02/2019
CHECKED BY: A. MNGCANDUBANA	REGISTRATION No. 201730089	
SIGNED:		

POWER LEGEND

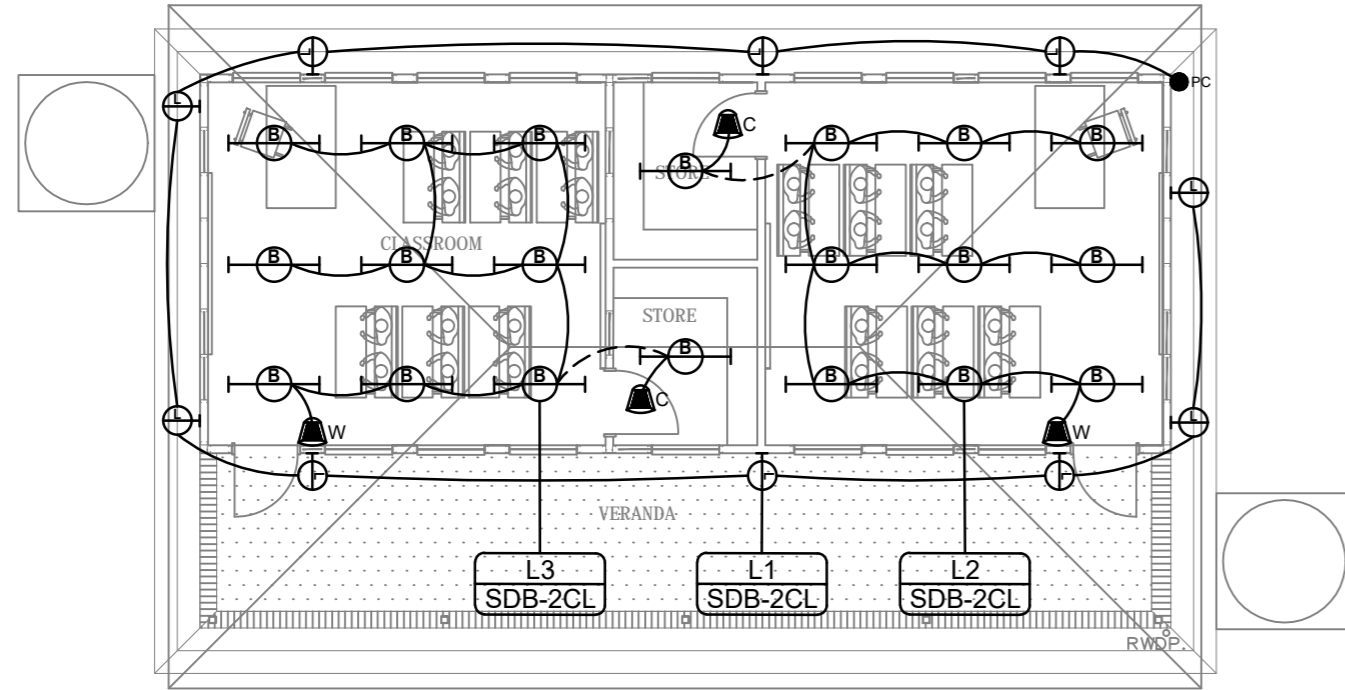
	DATA LINE CONNECTION POINT
	TELEPHONE POINT
	16A 3-PIN DEDICATED SWITCHED SOCKET OUTLET (RED) AT 450mm A.F.L.
	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN STANDARD SWITCHED SOCKET OUTLET & 16A 3-PIN SOCKET OUTLET AT 450mm A.F.L.
	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN STANDARD SWITCHED SOCKET OUTLET & 16A 3-PIN SOCKET OUTLET & USB SOCKET OUTLET AT 450mm A.F.L.
	2 POLE WATER TIGHT OUTDOOR ISOLATOR
	POWER SKIRTING
	POWER SKIRTING RISER
	ELECTRICAL DISTRIBUTION BOARD
	TELEPHONE DISTRIBUTION BOARD WITH 10mm SHUTTER BOARD (Note dimensions)
	200 x 200 x 100mm DRAW BOX IN CEILING VOID
	ONE WAY INTERCOM
	DESK MOUNTED INTERCOM CONTROL STATION (WITH MICROPHONE AND PUSH BUTTON)
	50mm Ø SLEEVE
	32mm Ø SLEEVE
	2000m PERIOD BELL
	DOUBLE POLE INDOOR ISOLATOR IN CEILING VOID
	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN SURGE PROTECTED STANDARD SWITCHED SOCKET OUTLET & 16A 3-PIN SOCKET OUTLET & 16A 3-PIN DEDICATED SWITCHED SOCKET OUTLET (RED) IN CEILING VOID

**LIGHTING LEGEND**

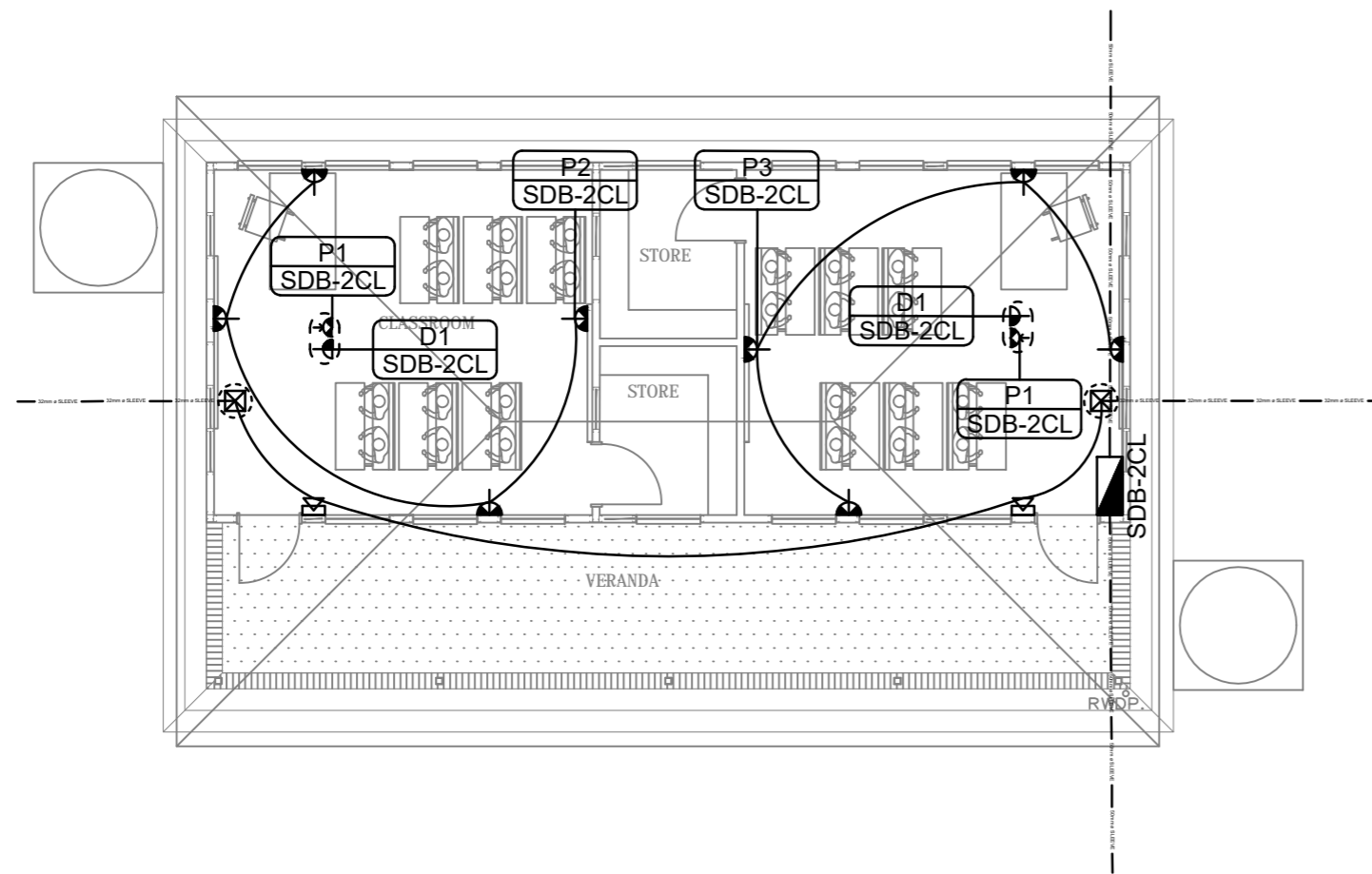
	PHOTO CELL
	MOTION (OCCUPANCY) SENSOR
	WALL MOUNTED MOTION (OCCUPANCY) SENSOR
	1 Lever - 2 Way - Light Switch
	40W LED TWO OPEN CHANNEL FLORESCENT LUMINAIRE WITH LED DRIVERS
	10W WALL MOUNTED INDICATION LIGHT WITH RED LENS
	20W LED DECORATIVE WALL MOUNTED BULKHEAD LUMINAIRE WITH LED DRIVERS AND MODULE AND IP65 RATING
	20W LED DECORATIVE CEILING MOUNT DOWNLIGHTER WITH LED DRIVERS AND MODULE AND IP65 RATING
	40W LED CORROSION PROOF FLORESCENT LUMINAIRE WITH LED DRIVERS
	40W LED SURFACE MOUNTED 1200mm x 600mm LUMINAIRE WITH LOW BRIGHTNESS DIFFUSER
	40W LED SURFACE MOUNTED 600mm x 600mm LUMINAIRE WITH LOW BRIGHTNESS DIFFUSER

ARCHITECTS DRAWING NO.	REV No.
<b>1323Ri-T-E-104</b>	<b>00</b>





LIGHTING LEGEND	
● PC	PHOTO CELL
Ⓒ	MOTION (OCCUPANCY) SENSOR
⒲	WALL MOUNTED MOTION (OCCUPANCY) SENSOR
⚡	1 Lever - 2 Way - Light Switch
Ⓕ	40W LED TWO OPEN CHANNEL FLORESCENT LUMINAIRE WITH LED DRIVERS
Ⓕ	10W WALL MOUNTED INDICATION LIGHT WITH RED LENS
Ⓕ	20W LED DECORATIVE WALL MOUNTED BULKHEAD LUMINAIRE WITH LED DRIVERS AND MODULE AND IP65 RATING
Ⓕ	20W LED DECORATIVE CEILING MOUNT DOWNLIGHTER WITH LED DRIVERS AND MODULE AND IP65 RATING
Ⓕ	40W LED CORROSION PROOF FLORESCENT LUMINAIRE WITH LED DRIVERS
Ⓕ	40W LED SURFACE MOUNTED 1200mm x 600mm LUMINAIRE WITH LOW BRIGHTNESS DIFFUSER




POWER LEGEND	
▽	DATA LINE CONNECTION POINT
▽	TELEPHONE POINT
Ⓕ	16A 3-PIN DEDICATED SWITCHED SOCKET OUTLET (RED) AT 450mm A.F.F.L.
Ⓕ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN STANDARD SWITCHED SOCKET OUTLET & 16A 3-PIN SOCKET OUTLET AT 450mm A.F.L.
Ⓕ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN STANDARD SWITCHED SOCKET OUTLET 16A 3-PIN SOCKET OUTLET & USB SOCKET OUTLET AT 450mm A.F.L.
Ⓕ	2 POLE WATER TIGHT OUTDOOR ISOLATOR
—	POWER SKIRTING
⊠	POWER SKIRTING RISER
Ⓕ	ELECTRICAL DISTRIBUTION BOARD
Ⓕ	TELEPHONE DISTRIBUTION BOARD WITH 10mm SHUTTER BOARD (Note dimensions)
Ⓕ	200 x 200 x 100mm DRAW BOX IN CEILING VOID
Ⓕ	ONE WAY INTERCOM
Ⓕ	DESK MOUNTED INTERCOM CONTROL STATION (WITH MICROPHONE AND PUSH BUTTON)
—	50mm Ø SLEEVE
—	32mm Ø SLEEVE
Ⓕ	2000m PERIOD BELL
Ⓕ	DOUBLE POLE INDOOR ISOLATOR IN CEILING VOID
Ⓕ	SOCKET OUTLET (WHITE), CONSISTING OF: 16A 3-PIN SURGE PROTECTED STANDARD SWITCHED SOCKET OUTLET 16A 3-PIN SOCKET OUTLET 16A 3-PIN DEDICATED SWITCHED SOCKET OUTLET (RED) IN CEILING VOID

- GENERAL NOTES:**
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE DETAILED SPECIFICATIONS.
  - DO NOT SCALE LENGTHS OF SLEEVE, CABLES ETC FROM DRAWINGS.
  - A COMPLETE SET OF DRAWINGS MUST BE AVAILABLE ON SITE AT ALL TIMES.
  - FOR WIRING CONDUCTOR SIZES, REFER TO DB SCHEMATIC DIAGRAMS.
  - CONDUITS TO BE INSTALLED IN STRAIGHT PARALLEL LINES IN CEILING VOIDS AND SADDLED AT EVERY TRUSS.
  - SEE DETAILED SPECIFICATION FOR MOUNTING HEIGHTS OF SWITCHES, SWITCH SOCKET OUTLETS, ETC.
  - NON-CORRODING DRAW WIRE / STRING TO BE INSTALLED IN ALL SPARE SLEEVES, TELEPHONE AND DATA CABLE CONDUITS AND SLEEVES.
  - DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY THEY BECOME EVIDENT.
  - ALLOW 4 X 20mmØ & 4 X 25mmØ SPARE CONDUITS FROM EACH DB TO CEILING VOIDS. (FLUSH MOUNTED DBs)
  - IF NOT MEASURED IN THE BILL OF QUANTITIES, TELEPHONE AND DATA SOCKETS SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
  - TELEPHONE AND DATA CONDUITS TO BE 25 Ø mm UNLESS INDICATED DIFFERENTLY ON DRAWINGS.
  - IF NOT INDICATED ON DRAWINGS, IN RADIO ROOMS, KITCHENS AND WORK AREA, POWER SKIRTING OR WIRING CHANNELS TO BE ABOVE WORK TOP OR 1200mm A.F.F.L.
  - CIRCUITING: AC = AIR CONDITIONING  
D = DEDICATED SSO  
L = LIGHTING CIRCUIT  
P = STANDARD SSO
  - ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.

REVISIONS			
REV	DATE	INIT.	DESCRIPTION

**CLIENT**



**PROJECT**

IDT ASIDI SCHOOL 2nd BATCH - RIVERVIEW SPS - EMIS 200400967

**TITLE**

2- CLASSROOM BLOCK (CL-2D)  
-  
LIGHTING & POWER LAYOUTS

**ARCHITECT**



ARCHITECTS | PROJECT MANAGERS | URBAN DESIGNERS | INTERIOR DESIGNERS

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P.O. Box 12359, Amalinda, 5252  
Tel: 043 742 0041  
Fax: 043 742 3885



DESIGN	TENDER	CONSTRUCTION

DESIGNED BY: L.S.B.T. MDALA  
SCALE: 1:100

DRAWN: L.S.B.T. MDALA  
DATE: 07/11/2016  
PRINT DATE: 08/02/2019

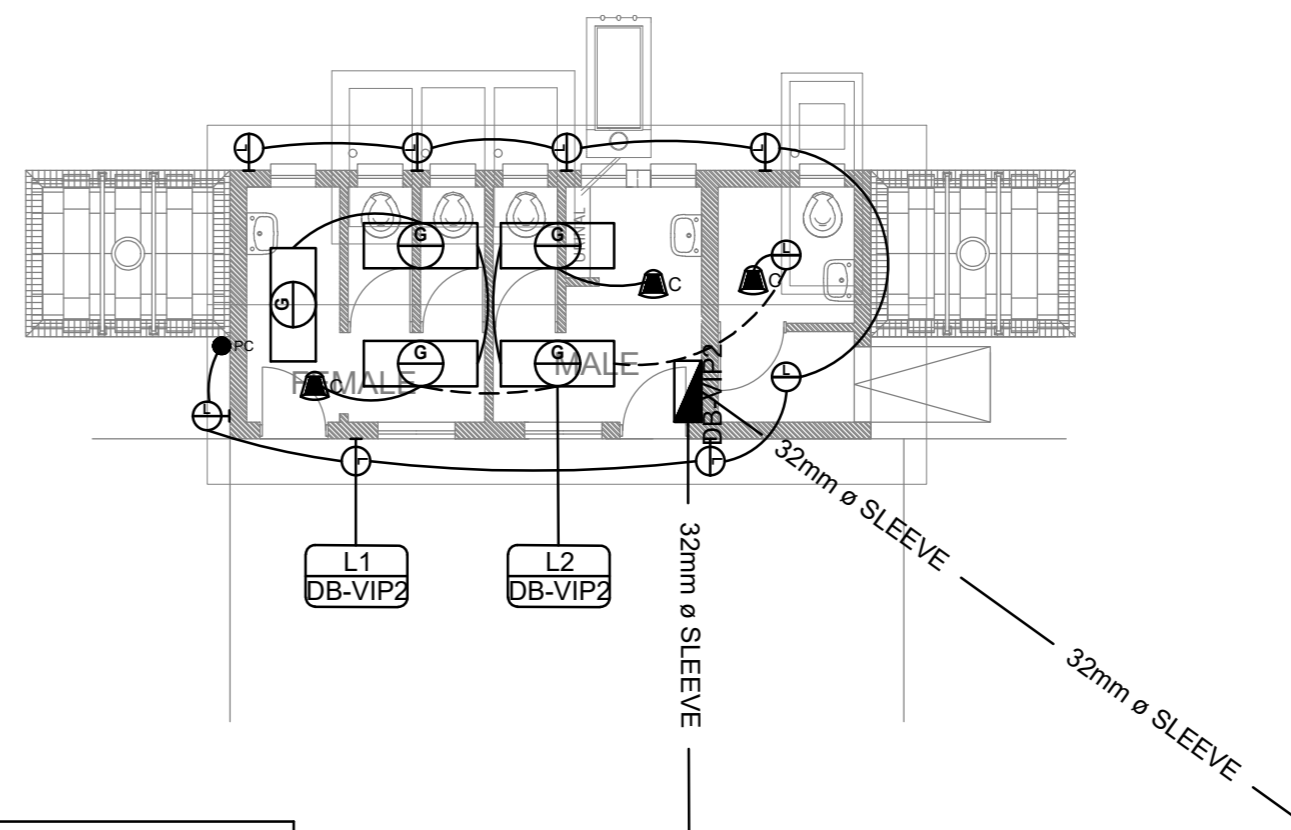
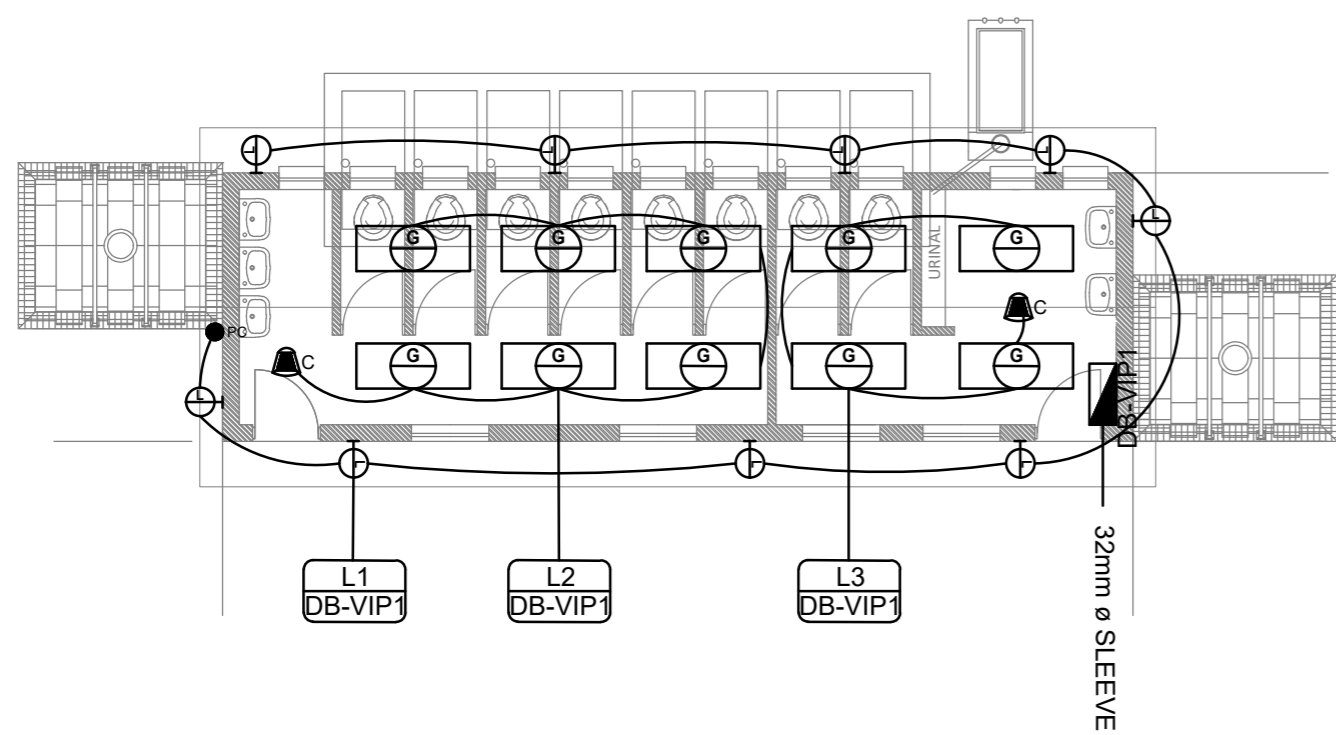
CHECKED BY: A. MNGCANDUBANA

REGISTRATION No. 201730089

SIGNED:

ARCHITECTS DRAWING NO. REV No.

DRAWING NO. 1323Ri-T-E-105  
REV No. 00



LIGHTING LEGEND	
● PC	PHOTO CELL
Ⓢ C	MOTION (OCCUPANCY) SENSOR
Ⓢ W	WALL MOUNTED MOTION (OCCUPANCY) SENSOR
2/	1 Lever - 2 Way - Light Switch
Ⓢ B	40W LED TWO OPEN CHANNEL FLORESCENT LUMINAIRE WITH LED DRIVERS
Ⓢ I	10W WALL MOUNTED INDICATION LIGHT WITH RED LENS
Ⓢ A	20W LED DECORATIVE WALL MOUNTED BULKHEAD LUMINAIRE WITH LED DRIVERS AND MODULE AND IP65 RATING
Ⓢ D	20W LED DECORATIVE CEILING MOUNT DOWNLIGHTER WITH LED DRIVERS AND MODULE AND IP65 RATING
Ⓢ G	40W LED CORROSION PROOF FLORESCENT LUMINAIRE WITH LED DRIVERS
Ⓢ H	40W LED SURFACE MOUNTED 1200mm x 600mm LUMINAIRE WITH LOW BRIGHTNESS DIFFUSER

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  - CONDUITS TO BE INSTALLED IN STRAIGHT PARALLEL LINES IN CEILING VOIDS AND SADDLED AT EVERY TRUSS.
  - SEE DETAILED SPECIFICATION FOR MOUNTING HEIGHTS OF SWITCHES, SWITCH SOCKET OUTLETS, ETC.
  - NON-CORRODING DRAW WIRE / STRING TO BE INSTALLED IN ALL SPARE SLEEVES, TELEPHONE AND DATA CABLE CONDUITS AND SLEEVES.
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  - IF NOT INDICATED ON DRAWINGS, IN RADIO ROOMS, KITCHENS AND WORK AREA, POWER SKIRTING OR WIRING CHANNELS TO BE ABOVE WORK TOP OR 1200mm A.F.F.L
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D = DEDICATED SSO  
L = LIGHTING CIRCUIT  
P = STANDARD SSO
  - ALL SSO AND LIGHT SWITCHES TO BE LABELLED WITH CIRCUIT NUMBERS.

REVISIONS			
REV	DATE	INT.	DESCRIPTION

**CLIENT**

**PROJECT**

IDT ASIDI SCHOOL 2nd BATCH - RIVERVIEW SPS - EMIS 200400967

**TITLE**

ABLUTION BLOCK (VIP1 & VIP2) - LIGHTING LAYOUTS

**ARCHITECT**

ARCHITECTS | PROJECT MANAGERS | URBAN DESIGNERS | INTERIOR DESIGNERS

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Fax: 043 742 3883

DESIGN	TENDER	CONSTRUCTION

DESIGNED BY: L.S.B.T. MDALA

SCALE: 1:100

DRAWN: L.S.B.T. MDALA

DATE: 07/11/2016

PRINT DATE: 08/02/2019

CHECKED BY: A. MNGCANDUBANA

REGISTRATION No. 201730089

SIGNED:

ARCHITECTS DRAWING NO.    REV No.

DRAWING NO. 1323RI-T-E-106    REV No. 00



**GENERAL NOTES:**

- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS.
- DO NOT SCALE FROM DRAWINGS
- A COMPLETE SET OF DRAWINGS MUST BE AVAILABLE ON SITE AT ALL TIMES.
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- DISCREPANCIES, ERRORS AND / OR OMISSIONS ARE TO BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.
- ALLOW 4 X 20mm<sup>2</sup> & 4 X 25mm<sup>2</sup> SPARE CONDUITS FROM EACH FLUSH MOUNTED DB TO CEILING VOIDS.
- CIRCUITING: AC = AIR CONDITIONING  
D = DEDICATED SSO  
L = LIGHTING CIRCUIT  
P = STANDARD SSO

REVISIONS			
REV	DATE	INIT	DESCRIPTION

CLIENT



**basic education**  
Department:  
Basic Education  
REPUBLIC OF SOUTH AFRICA

IMPLEMENTING AGENT



**idt**  
Independent Development Trust

PROJECT

**RIVERVIEW JPS**

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Fax: 043 742 3883



**CESA**  
Consulting Engineers South Africa

TITLE

**MDB, DB-MC, DB-GR, DB-VP3, DB-VIP1, DB-VIP2, DB-DNC & DB-CL3D SCHEMATIC DIAGRAMS**

DESIGN	TENDER	CONSTRUCTION

DESIGNED BY:	SCALE
L.S.B.T MDALA	N. T. S

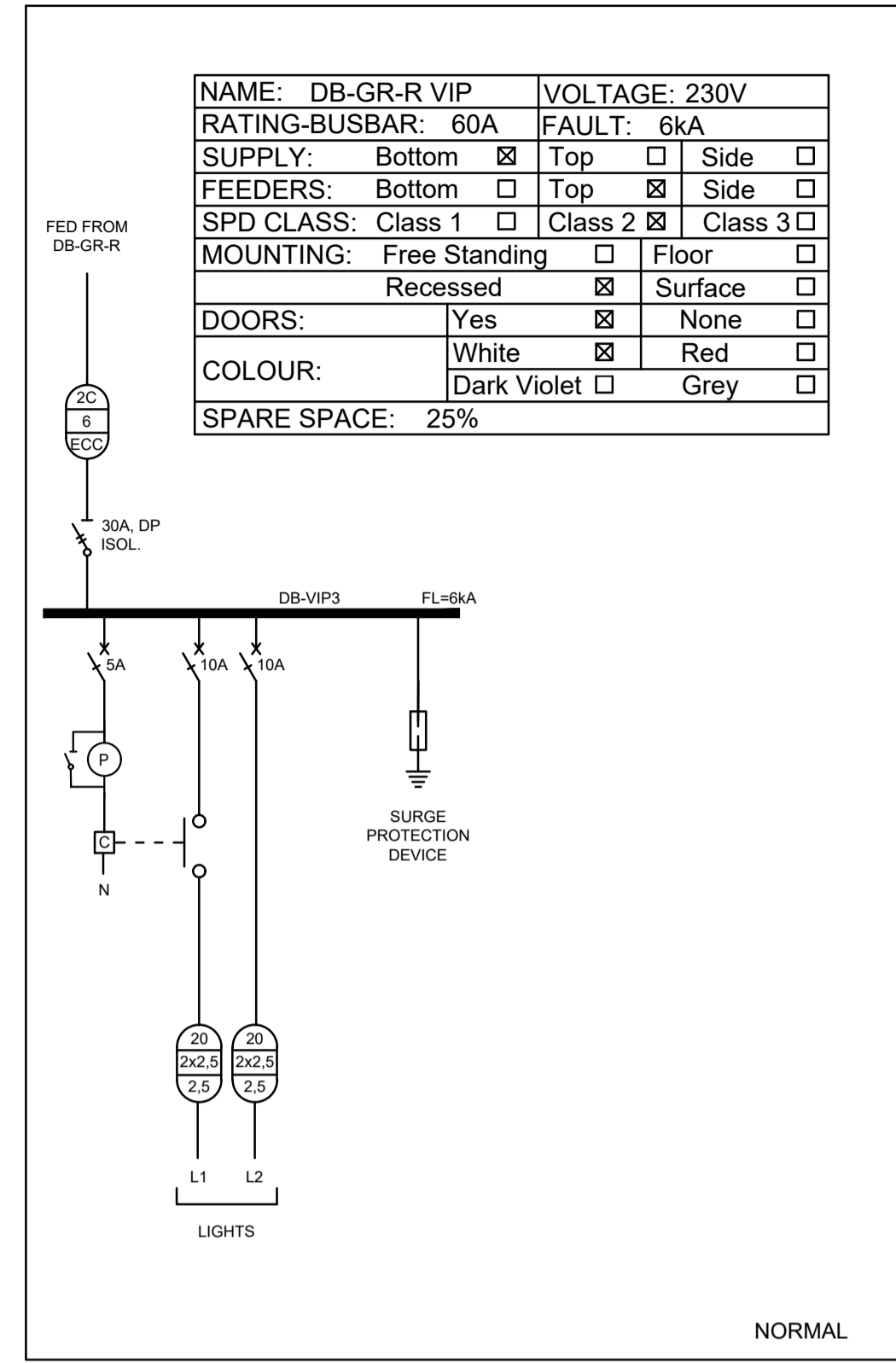
DRAWN	DATE	PRINT DATE
L.S.B.T MDALA	29/01/2014	08/02/2019

CHECKED BY: A. MNGCANDUBANA

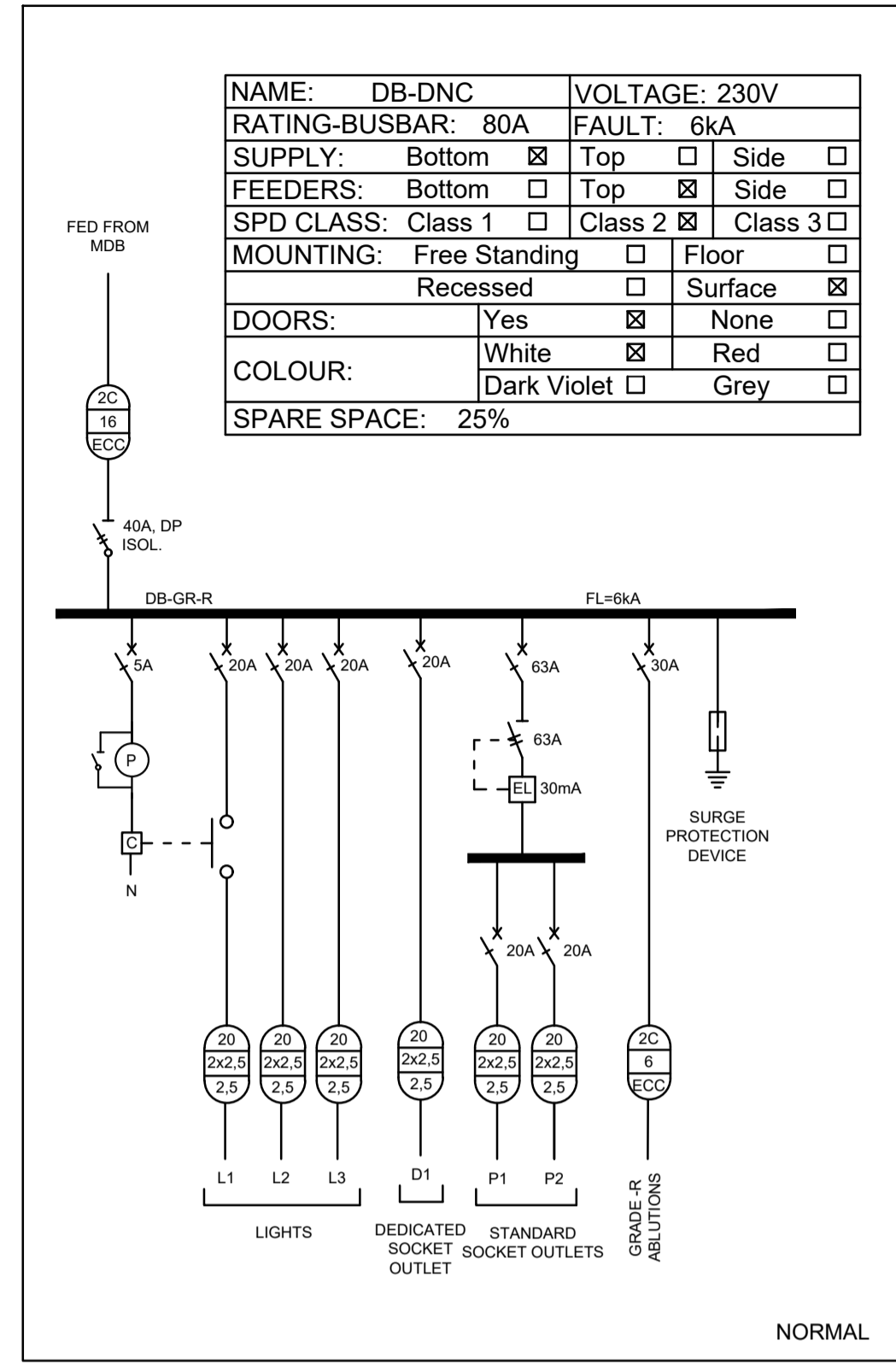
REGISTRATION No. 201730089

SIGNED:

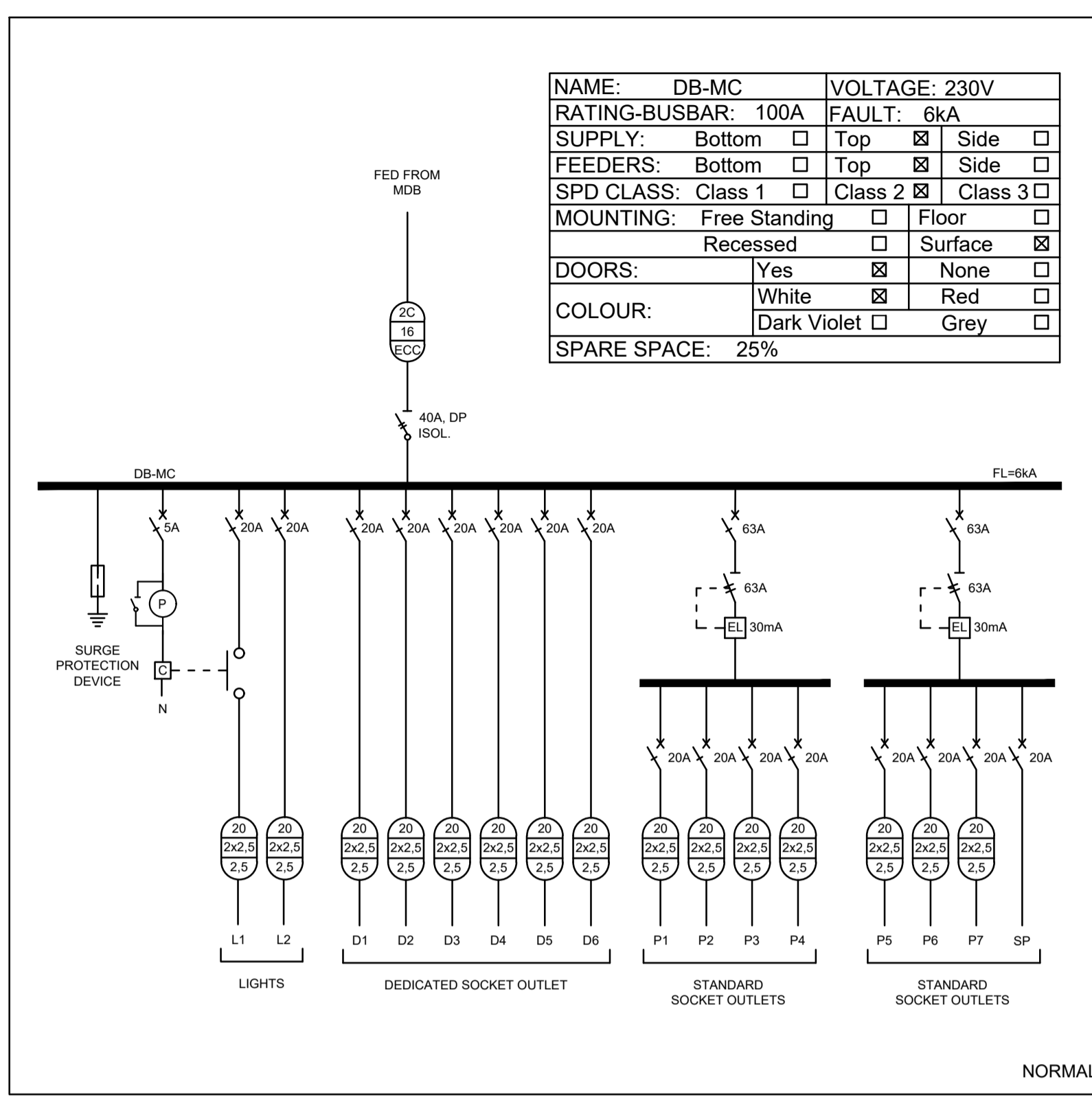
DRAWING NO.	REV No.
1323RI-D-E-301	00



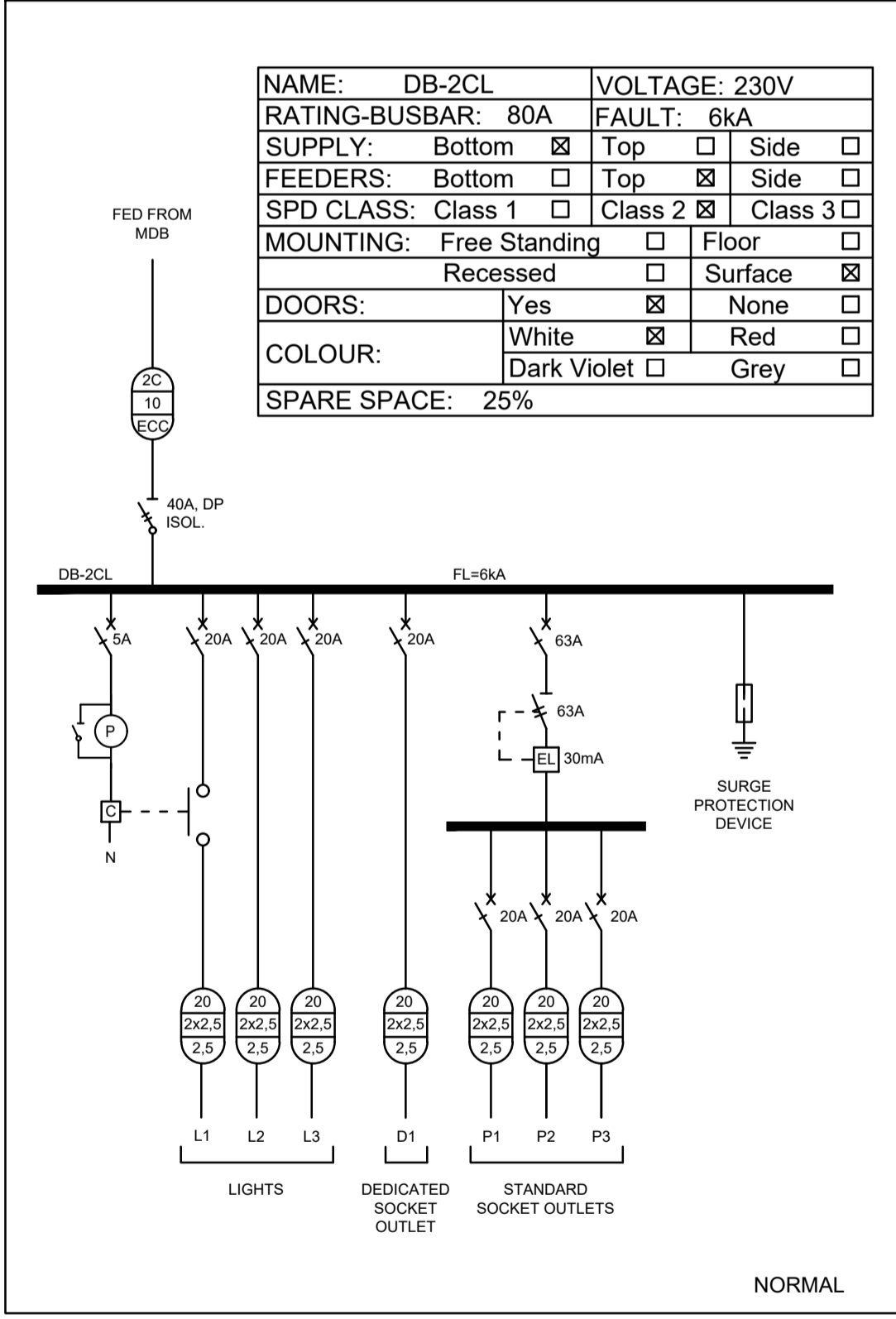
DB-GR-R VIP  
GRADE-R ABLUTION BLOCK



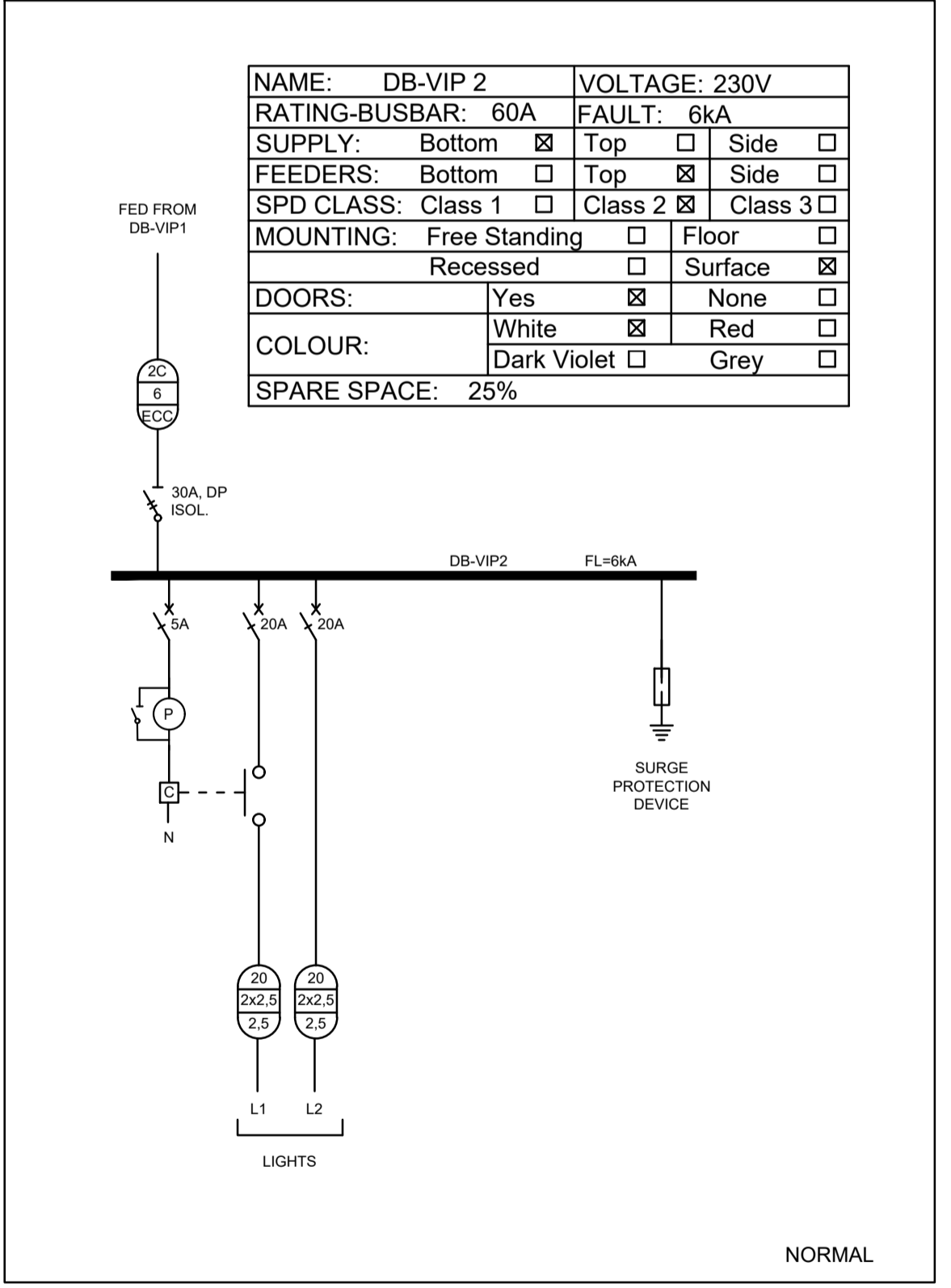
DB-GR  
GRADE-R BLOCK



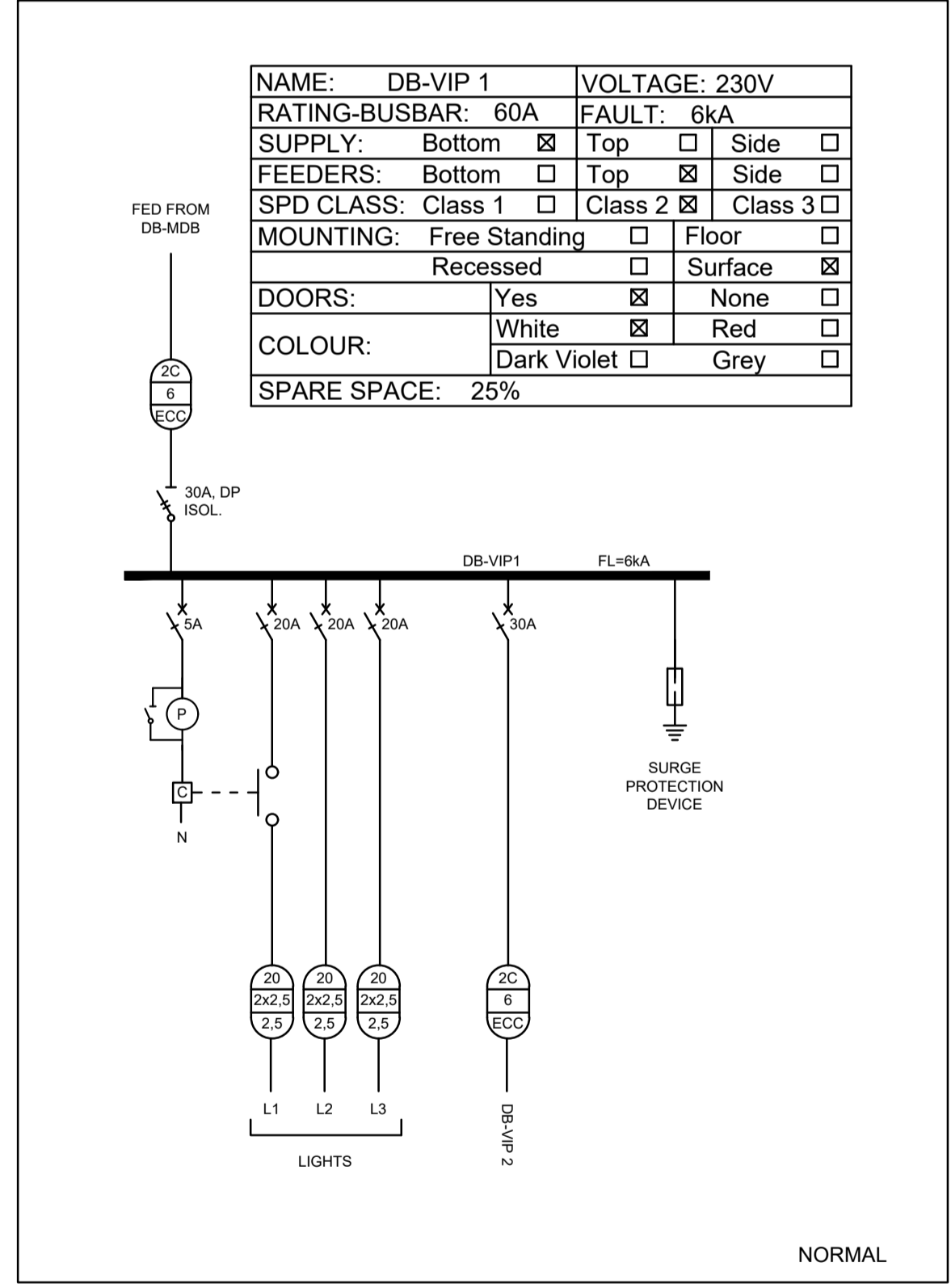
DB-MC  
MEDIA CENTRE



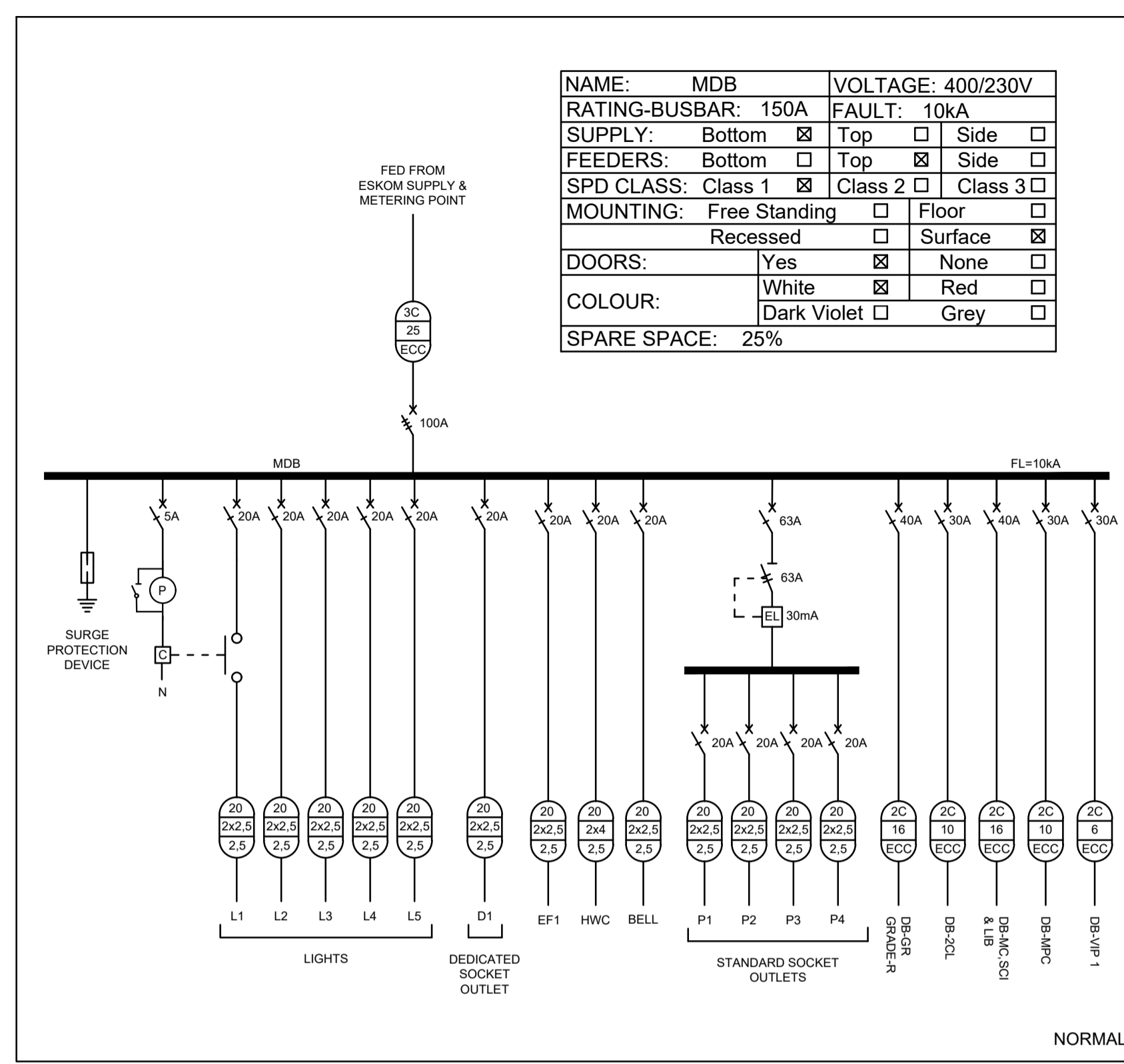
DB-2CL  
2 CLASSROOM BLOCK



DB-VIP2  
ABLUTION BLOCK



DB-VIP1  
ABLUTION BLOCK



MDB

LEGEND

BUSBAR	EARTH LEAKAGE PROTECTION UNIT WITH DISCONNECTOR	CABLES
SINGLE POLE	SURGE PROTECTION DEVICE	CONDUIT SIZE mm
TRIPLE POLE	PHOTOCELL BY PASS SWITCH	CORE SIZE mm
ISOLATOR		EARTH CONDUCTOR mm
CIRCUIT BREAKER SIZE AS SHOWN		

---

# ADDENDUM F

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## IDT Addendum to the JBCC



## ADDENDUM

TO

## THE JBCC PRINCIPAL BUILDING AGREEMENT

NAME OF PROJECT: .....

.....

.....

.....

.....



INTRODUCTION

**WHEREAS**, the Independent Development Trust (“IDT”) made an Offer of Appointment and the Contractor has accepted such appointment subject to the conditions stipulated in the aforesaid Offer of Appointment Letter, which conditions include signing of the JBCC Agreement, Edition ..... (hereinafter referred to as “Main Agreement”).

**AND WHEREAS**, this addendum shall form part of the Main Agreement between the Employer and the Contractor.

**1. ADDENDUM TO THE MAIN AGREEMENT**

1.1 This Agreement will constitute an Addendum to the Main Agreement as contemplated herein;

1.2 The Terms of Reference, Accepted Proposal or Tender, Standard Conditions of Tender, Special Conditions of Tender and adjusted Priced Bills of Quantities shall form part of the agreement between the Contractor and the Employer;

1.3 This Addendum will be deemed to incorporate, with or without variation, all the provisions of the Main Agreement, unless the context clearly requires otherwise;

1.4 All words and phrases used in this Addendum which are defined in the Main Agreement, will bear the same meaning assigned to them in the Main Agreement; and

1.5 All references in the Main Agreement to “the/this Agreement” itself, will be deemed to be references also to the Main Agreement duly amended by this Addendum.

**1.6 Interpretations and Definition**

1.6.01 **Financial Implications** shall mean the variation amount over and above the awarded contract sum.

**2. SPECIAL CONDITION**

If there is any conflict between the contents or any part of this Addendum and the contents or any part of the Main Agreement and other annexures, the content of this Addendum shall prevail.

### 3. WAIVER OF CONTRACTOR'S LIEN

- 3.1 The Contractor hereby waives, in favour of the Employer, any lien or right of retention that is or may be held in respect of the Works to be executed on the Site.
- 3.2 The Employer, as an Organ of State, shall not be required to provide payment guarantees.

### 4. ASSIGNMENT OF RIGHTS OR OBLIGATIONS

- 4.1 Neither **party** shall assign or cede rights or obligations without the written consent of the other **party**, which consent shall not be unreasonable withheld.
- 4.2 Where the Contractor intend to cedes any right to monies due or to become due under this agreement as security in favour of a financial institution, a written consent in accordance with clause 4.1 above, shall be obtained from the Employer prior to entering into such cession.
- 4.3 Any cession entered into without the necessary written consent from the either party, shall be null and void.
- 4.4 The Employer shall not consent to a cession of monies due or to become due under this agreement as security in favour of a financial institution, unless such financial institution submitted to the IDT a Valid Tax Clearance Certificate, is registered as a credit provider in terms of the National Credit Act and as a vendor in the IDT's Vendor Management System.

### 5 INTERIM PAYMENT

- 5.1 The **Employer** shall, in accordance with clause 8.2.3 of the treasury regulation of March 2005, pay to the **Contractor** the amount certified in an interim **payment certificate** within **thirty (30) calendar days** of the date of submission of the **payment certificate**".

- 5.2 Default interest, where applicable, shall only be effective after the 30 calendar days of the date of receipt of the interim **payment certificate from the Principal Agent**.
- 5.3 The Employer shall be entitled to apply a set-off against a legitimate and liquid claim against the Contractor from which a valid invoice has been received.

## 6 TAX COMPLIANCE MEASURES

- 6.1 The Contractor hereby grant confirmation that SARS may, on on-going basis during the contract term, disclose the Contractor's tax compliance status to the employer.
- 6.2 Should the Contractor appoint a sub-contractor to execute a portion of a work in excess of the threshold (currently 25%) prescribed by the National Treasury, the Contractor must ensure that a sub-contractor is tax complaint and remains tax compliant for the full duration of the contract. The contractor shall obtain a written consent from its sub-contractors confirming that SARS may on on-going basis during the contract term, disclose the sub-contractor's tax compliance status to the employer.
- 6.3 The Contractor shall submit a valid tax clearance certificate within 10 working days from the date of expiry of the tax clearance certificate. The Employer reserve the right to demand a valid Tax Clearance Certificate prior to making any payment to the Contractor, should it become aware that the tax clearance corticated has expired.
- 6.4 Unless the Employer receive a written confirmation that the Contractor has challenged its tax compliance status with SARS, the Employer shall not process any payment to the Contractor, if 30 days has lapsed since the writtenuotice by the Employer and the Contractor has failed to remedy its tax compliance status.
- 6.5 Employer's non-payment of the Contractor's invoice in accordance with clause 6.4 above shall not absolve the contractor from performing its obligation in terms of the contract.

- 6.6 Unless the Employer receives a written confirmation that the Contractor or sub-Contractor has challenged its tax compliance status with SARS, the Employer shall be entitled to cancel the contract with the Contractor or instruct the Contractor to cancel its contract with the Sub-Contractor.
- 6.7 Where a Contractor is a JV, each party to a JV must be tax compliant and remains tax compliant for the full duration of the contract, failing which, the Employer shall invoke paragraph 6.4 or 6.6 above.

## **7. APPROVAL OF VARIATION ORDERS**

- 7.1 Upon receipt of the Variation Order (VO), the Principal Agent must professionally consider the merits of the Variation Order and make a recommendation to the Employer.
- 7.2 The Principal Agent shall not have the power to approve any deviation or variation which has financial implications on the Employer without the necessary written approval of the Employer, except under emergency circumstances wherein failure to undertake the work may result in loss of life.
- 7.3 The Employer must communicate the approval of a Variation Order in writing to the Principal Agent and the Principal Agent shall, upon receipt of confirmation of the approval of the VO, issue the necessary Contract Instruction to the contractor to undertake the works.
- 7.4 The Contractor shall not commence with any Variation Order Works without the written approval of the Variation Order from the Employer, except under circumstances mentioned in paragraph **7.2** above.
- 7.5 Should the Contractor undertakes the Variation Order Works without the necessary written approval of the Variation Order from the Employer, the Contractor shall be entirely liable for any financial and any related implications and hereby indemnify and hold harmless the Employer from and against any and all claims, actions, damages, liabilities, injuries, costs, fees, expenses, or losses, including and without limitation, reasonable attorney's fees and costs of investigation and litigation, whatsoever which may be incurred by, or for which liability may be asserted against, the Employer arising out of the Contractor's performance or non-performance of unauthorized works, but only

to the extent caused by the negligent acts, errors or omissions of the Contractor.

- 7.6 The Contractor shall not accept any instructions from any party, including beneficiary Department, other than the Principal Agent.

## **8. JOINT VENTURE AGREEMENT**

8.1 Should the Joint Venture Agreement be dissolved or any of the JV partner pull out the JV Agreement for any reasons whatsoever, the Employer hereby reserve its right to terminate the contract with immediate effect.

8.2 Should the Employer decide not to terminate the contract upon the dissolution of the JV Agreement and the replacement JV partner does not meet the BBBEE threshold stipulated in the tender document, the IDT shall be entitled to cancel the contract with immediate effect.

8.3 Should the BBBEE status of the Joint Venture be changed to a lower rate than the bidding rate, based on legislation applicable at the closing date of the

8.4 tender, the IDT shall be entitled to cancel the contract.

## **9. BREACH**

9.1 In the event that the contractor: -

9.1.1 commits an act of insolvency; or

9.1.2 is placed under a provisional or final winding-up or judicial management order; or

9.1.3 is placed under or applied for business rescue; or

9.1.4 makes an assignment of more than 25% of either its right and/or its obligation for the benefit of the third party without the written consent of the employer; or

9.1.5 the Contractor is registered or fails to renew his registration with the CIDB or changes directorship during the course of the project, resulting in the contravention of BBBEE statutory requirement; or

9.1.6 fails to satisfy or take steps to have set aside any judgment taken against it within 14 (Fourteen) business days after such judgment has come to its notice,

then the other Employer will be entitled to terminate the Agreement on written notice.

Signed at ..... on this the ..... day of.....**202..**

**AS WITNESSES:**

1. \_\_\_\_\_

\_\_\_\_\_

For and on behalf of the **Employer:**  
(.....), in his/her  
capacity as the .....

2. \_\_\_\_\_

\_\_\_\_\_

For and on behalf of the **Employer:**  
(.....), in his/her  
capacity as the .....  
.....

Signed at ..... on this the ..... day of..... **202...**

**AS WITNESSES:**

3. \_\_\_\_\_

4. \_\_\_\_\_

\_\_\_\_\_ For

and on behalf of the

**Contractor:**

.....

in his/her capacity as

.....

....., who hereby confirm

that he/she is duly

authorized.